

CONSUMABLE GOODS ONLINE SHOPPING SYSTEM, PORTAL SERVER,
ELECTRONIC SETTLEMENT SERVER, MAIL ORDER CENTER SERVER,
RECYCLING PLANT SERVER, OR SERVER, AND
CONSUMABLE GOODS ONLINE SHOPPING METHOD AND PROGRAM,
5 AND RECORDING MEDIUM

BACKGROUND OF THE INVENTION

Field of the Invention

10 The present invention relates to a consumable
goods online shopping system that online performs an
order of consumable goods in accordance with the
configuration between communication information
equipment that can detect the remaining quantity of the
consumable goods and various servers connected via a
15 network a portal server, an electronic settlement
server, a mail order center server, a recycling plant
server, or a server, and a consumable goods online
shopping method and program, and a recording medium.

Related Background Art

20 Up to this date, in the technical field of this
kind, for the electronic equipment provided with a
print function, such as a printer, a facsimile machine,
and a copying machine, the processing in which the
remaining quantity of consumable goods, such as ink or
25 toner, is detected and error messages, such as a
remaining quantity alarm and a remaining quantity error
are reported to the user has been executed.

Upon receipt of this notification, the user has purchased the consumable goods by going to a store or order them from it by telephone.

In recent years, with the spread of the Internet,
5 an online shopping purchase form via a network has been increasing, and it is estimated that online services that use the Internet will further be increasing.

In consideration of such flow of art, in the technical field to which the present invention belongs,
10 it is considered that how advantages of the user and a company will be gained when online services are used is becoming the central problem of the future technical development.

Up to this date, as the prior art regarding the
15 purchase of consumable goods, a mechanism that eliminates the need for work, such as a type number check in the purchase of the consumable goods, has been disclosed.

For example, when the remaining quantity of ink
20 that is the consumable goods of printing means and is judged smaller than the predetermined value, the ink in an ink cartridge is assumed insufficient. A mechanism of which the purpose is to allow the user to order the consumable goods and easily purchase the consumable
25 goods without troublesome work by printing a form to which consumable goods information, such as the type number of the ink cartridge, is entered and only

entering the number of items to be ordered in the form has been disclosed.

Further, a mechanism of being able to read the consumable goods information stored in a server and always being able to acquire the latest order table from a supplier of the consumable goods by sending a message containing identification information that specifies the ink cartridge to the supplier server of the consumable goods via a network immediately before the ink of the ink cartridge is exhausted has been disclosed.

Moreover, a mechanism of also being able to online order the consumable goods by using the configuration in which the order table is displayed on the display and order data is transferred over the network has been disclosed.

SUMMARY OF THE INVENTION

However, in the past, only the problem that how the user's labor that occurs in the purchase of consumable goods is saved was solved, and, for example, a mechanism in which each advantage of the user, a wholesaler (manufacturer), and a retail store is considered was not supposed.

The present invention is performed in consideration of the above problems, and an object of the present invention is to provide a mechanism so that

each of the user, wholesaler (manufacturer), and retail store can obtain the advantage. A consumable goods online shopping system that comprises communication information equipment that interconnects via a network and consumes the consumable goods, a portal server to which data is sent from the communication information equipment, an electronic settlement server that performs the settlement of the transaction performed in the communication information equipment, a mail order center server for mail-ordering the consumable goods, a recycling plant server installed in the recycling plant of the consumable goods, and a merchandise control center server installed in the merchandise control center of the consumable goods that interconnect via a network are is provided, wherein the communication information equipment comprises first information processing means that performs the processing of various information in the communication information equipment, first screen display means that displays information-processed information on the screen, first input means that inputs information necessary for information processing, first printing means that prints information-processed contents, first communicating means that communicates the information-processed contents through the network, first consumable goods consumption executing means that executes the processing which consumes the consumable

goods, and first consumable goods remaining quantity
detecting means that detects the remaining quantity of
the consumable goods, the portal server comprises
second information processing means that performs the
5 processing of various information in the portal server,
second screen display means that displays information-
processed information on the screen, second input means
that inputs information necessary for information
processing, second printing means that prints
10 information-processed contents, second communicating
means that communicates the information-processed
contents via the network, a second mail address
database in which the mail address of the communication
information equipment connected to the portal server
15 and recovery cartridge information are stored, a second
delivery store database in which delivery stores of the
consumable goods are stored for each area, a second
mail order center registration information database in
which the information of the mail order center that is
20 connected to the portal server and from which the order
issue of the consumable goods is given, and a second
consumable goods price database in which individual
merchandise price information is stored for each mail
order center, the electronic settlement server
25 comprises third information processing means that
performs an electronic settlement based the
authentication information input from the first input

means on the communication information equipment, third screen display means that displays information-processed information, third input means that inputs information necessary for information processing, third printing means that prints information-processed contents, third communicating means for communicating information necessary for performing the electronic settlement, and a third electronic settlement database in which data necessary for performing the electronic settlement is stored, the mail order center server comprises fourth information means that performs processing of various information in the mail order center server, fourth screen display means that displays information-processed information on the screen, fourth input means that inputs information necessary for information processing, fourth printing means that prints information-processed contents, fourth communicating means that communicates the information-processed contents via the network, a fourth merchandise database in which the data of merchandise necessary for receiving a mail order including the price and the stock quantity of the consumable goods controlled in a mail order center, a fourth customer control database in which the customer information of a customer of which the order request is given, and a fourth order table database for storing the order table to which an order is given, the

recycling plant server comprises fifth information processing means that performs processing of various information in a recycling plant server, fifth screen display means that displays that displays information-processed information on the screen, fifth input means that inputs information necessary for information processing, fifth printing means that prints information-processed contents, fifth communicating means that communicates the information-processed contents via the network, a fifth cartridge information reader that reads the owner information stored in the storage area of the cartridge recovered in the recycling plant, and a fifth owner information management database in which the number of recovered cartridges and the owner information are linked and stored, and the merchandise control center server comprises sixth information processing means that performs processing of various information in the merchandise control center server, sixth screen display means that displays information-processed information on the screen, sixth input means that inputs information necessary for information processing, sixth printing means that prints information-processed contents, sixth communicating means that communicates the information-processed contents via the network, and a sixth merchandise inventory control database in which the merchandise inventory control information of the

consumable goods is recorded.

Otherwise, a portal server to which data is sent from the communication information equipment that is connected to communication information equipment which consumes consumable goods, an electronic settlement server that performs the settlement of the transaction performed in the communication information equipment, a mail order center server for mail-ordering the consumable goods, a recycling plant server installed in the recycling plant of the consumable goods, and a merchandise control center server installed in the merchandise control center of the consumable goods via a network is provided, wherein it comprises information processing means that performs processing of various information in a portal server, screen display means that displays information-processed information on the screen, input means that inputs information necessary for information processing, printing means that prints information-processed contents, communicating means that communicates the information-processed contents via the network, a mail address database in which a mail address of the communication information equipment connected to the portal server and recovery cartridge information are stored, a delivery store database in which delivery stores of the consumable goods are stored for each area, a mail order center registration information database in which the information of the

mail order center connected to the portal server and
from which the consumable goods are ordered is stored,
and a consumable goods price database in which
individual merchandise price information is stored for
5 each mail order center.

Otherwise, the information processing means
provides the portal server according to claim 2,
comprising mail address notification means that
receives a mail address acquisition request issued by
10 mail address automatic registering means of
communication information equipment, retrieves the mail
address database, allocates an unregistered empty mail
address as the mail address of the requested
communication information equipment, and reports it,
15 and

automatic mail address allocation means that
automatically allocates the empty mail address and
empty mail address retrieval means for supporting
allocation by a portal server administrator regarding
20 the allocation of the mail address.

Otherwise, a mail order center server for mail-
ordering the consumable goods that is connected to
communication information equipment that consumes the
consumable goods, a portal server to which data is sent
25 from the communication information equipment, an
electronic settlement server that performs the
settlement of a transaction performed in the

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Otherwise, a recycling plant server installed in the recycling plant of the consumable goods that is connected to communication information equipment which consumes the consumable goods, a portal server to which data is sent from the communication equipment, an electronic settlement server that performs the settlement of the transaction performed in the

Otherwise, a recycling plant server installed in the recycling plant of the consumable goods that is connected to communication information equipment which consumes the consumable goods, a portal server to which data is sent from the communication equipment, an electronic settlement server that performs the settlement of the transaction performed in the

communication information equipment, a mail order
center server for mail-ordering the consumable goods,
and a merchandise control center installed in the
merchandise control center of the consumable goods
5 through a network is provided, wherein it comprises
information processing means that performs the
processing of various information in a recycle plant
server, screen display means that displays information-
processed information on the screen, input means that
10 inputs the information necessary for information
processing, printing means that prints the information-
processed contents, communicating means that
communicates the information-processed contents via the
network, cartridge information reader that reads the
15 owner information stored in the storage area of the
cartridge recovered in the recycle plant, and an owner
information management database in which the number of
recovery cartridges and owner information are linked
and stored.

20 Otherwise, a server that manages status of use of
consumable goods a first consumable goods trader who
handles the consumable goods is provided, wherein it
comprises calculating means that receives the status of
use of the consumable goods used in the printer via the
25 predetermined communication line and calculates a point
for a customer in accordance with the received status
of use and compensation deciding means that decides

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compensation based on a reduced price that is paid to a second consumable goods trader in accordance with the fact that the customer purchases the merchandise the second consumable goods trader provides via the predetermined purchase screen at the reduced price based on the point.

Another object and feature of the present invention will be evident from the following specifications and drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a block diagram of an example of a consumable goods online shopping system according to the present invention;

FIG. 2 is a block diagram of an example of another consumable goods online shopping system according to the present invention;

FIG. 3 is a block diagram of an example of another consumable goods online shopping system according to the present invention;

FIG. 4 is a block diagram of an example of another consumable goods online shopping system according to the present invention;

FIG. 5 is a block diagram of an example of another consumable goods online shopping system according to the present invention;

FIG. 6 is a block diagram of an example of another

consumable goods online shopping system according to the present invention;

FIG. 7 is a block diagram of an example of another consumable goods online shopping system according to the present invention;

FIG. 8 is a block diagram of an example of another consumable goods online shopping system according to the present invention;

FIG. 9 is a block diagram of an example of another consumable goods online shopping system according to the present invention;

FIG. 10 is a block diagram of an example of another consumable goods online shopping system according to the present invention;

FIG. 11 is a block diagram of an example of another consumable goods online shopping system according to the present invention;

FIG. 12 is a block diagram of an example of another consumable goods online shopping system according to the present invention;

FIG. 13 is a block diagram of an example of another consumable goods online shopping system according to the present invention;

FIG. 14 is a block diagram of an example of another consumable goods online shopping system according to the present invention;

FIG. 15 is a block diagram of an example of

FIG. 16 is a block diagram of an example of another consumable goods online shopping system according to the present invention;

FIG. 18 is a block diagram of an example of another consumable goods online shopping system according to the present invention;

FIG. 20 is a block diagram of an example of another consumable goods online shopping system according to the present invention;

FIG. 22 is a block diagram of an example of another consumable goods online shopping system according to the present invention;

FIG. 24 is a block diagram of an example of

another consumable goods online shopping system
according to the present invention;

FIG. 25 is a block diagram of an example of
another consumable goods online shopping system
5 according to the present invention;

FIG. 26 is a block diagram of an example of
another consumable goods online shopping system
according to the present invention;

FIG. 27 is a block diagram of an example of
10 another consumable goods online shopping system
according to the present invention;

FIG. 28 is a block diagram of an example of
another consumable goods online shopping system
according to the present invention;

FIG. 29 is a block diagram of an example of
15 another consumable goods online shopping system
according to the present invention;

FIG. 30 is a block diagram of an example of
another consumable goods online shopping system
20 according to the present invention;

FIG. 31 is a block diagram of an example of
another consumable goods online shopping system
according to the present invention;

FIG. 32 is a block diagram of an example of
25 another consumable goods online shopping system
according to the present invention;

FIG. 33 is a block diagram of an example of

2025 RELEASE UNDER E.O. 14176

another consumable goods online shopping system
according to the present invention;

FIG. 34 is a block diagram of an example of
another consumable goods online shopping system
5 according to the present invention;

FIG. 35 is a block diagram of an example of
another consumable goods online shopping system
according to the present invention;

FIG. 36 is a block diagram of an example of
10 another consumable goods online shopping system
according to the present invention;

FIG. 37 is a block diagram of an example of
another consumable goods online shopping system
according to the present invention;

FIG. 38 is a block diagram of an example of
15 another consumable goods online shopping system
according to the present invention;

FIG. 39 is a block diagram of an example of
another consumable goods online shopping system
20 according to the present invention;

FIG. 40 is a block diagram of an example of
another consumable goods online shopping system
according to the present invention;

FIG. 41 is a block diagram of an example of
25 another consumable goods online shopping system
according to the present invention;

FIG. 42 is a block diagram of an example of

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another consumable goods online shopping system
according to the present invention;

FIG. 43 is a block diagram of an example of
another consumable goods online shopping system
5 according to the present invention;

FIG. 44 is a block diagram of an example of
another consumable goods online shopping system
according to the present invention;

FIG. 45 is a block diagram of an example of
10 another consumable goods online shopping system
according to the present invention;

FIG. 46 is a schematic block diagram of embodiment
1 of the consumable goods online shopping system
according to the present invention;

FIG. 47 is an operation concept diagram of the
15 initialization processing of the system shown in FIG.
46;

FIG. 48 is the operation concept diagram of the
order start processing of the system shown in FIG. 46;

FIG. 49 is the operation concept diagram of the
20 order table creation processing of the system shown in
FIG. 46;

FIG. 50 is the operation concept diagram of the
order issue processing of the system shown in FIG. 46;

FIG. 51 is the operation concept diagram of the
25 received order processing of the system shown in
FIG. 46;

FIG. 52 is the operation concept diagram of the order conveyance processing of the system shown in FIG. 46;

FIG. 53 is the operation concept diagram of the settlement processing of the system shown in FIG. 46;

FIG. 54 is the operation concept diagram of the recovery cartridge information registration processing of the system shown in FIG. 46;

FIG. 55 is an operation flowchart of embodiment 2 of the consumable goods online shopping system according to the present invention;

FIG. 56 is an operation flowchart of another embodiment 2 of the consumable goods online shopping system according to the present invention;

FIG. 57 is an operation flowchart of another embodiment 2 of the consumable goods online shopping system according to the present invention;

FIG. 58 is an operation flowchart of another embodiment 2 of the consumable goods online shopping system according to the present invention;

FIG. 59 is an operation flowchart of another embodiment 2 of the consumable goods online shopping system according to the present invention;

FIG. 60 is an operation flowchart of another embodiment 2 of the consumable goods online shopping system according to the present invention;

FIG. 61 is an operation flowchart of embodiment 3

of the consumable goods online shopping system
according to the present invention;

FIG. 62 is an operation flowchart of another
embodiment 3 of the consumable goods online shopping
5 system according to the present invention;

FIG. 63 is an operation flowchart of another
embodiment 3 of the consumable goods online shopping
system according to the present invention;

FIG. 64 is an operation flowchart of another
10 embodiment 3 of the consumable goods online shopping
system according to the present invention;

FIG. 65 is an operation flowchart of embodiment 4
of the consumable goods online shopping system
according to the present invention;

FIG. 66 is an operation flowchart of another
15 embodiment 4 of the consumable goods online shopping
system according to the present invention;

FIG. 67 is an operation flowchart of another
embodiment 4 of the consumable goods online shopping
20 system according to the present invention;

FIG. 68 is an operation flowchart of embodiment 5
of the consumable goods online shopping system
according to the present invention;

FIG. 69 is an operation flowchart of another
25 embodiment 5 of the consumable goods online shopping
system according to the present invention;

FIG. 70 is an operation flowchart of another

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embodiment 5 of the consumable goods online shopping system according to the present invention;

FIG. 71 is an operation flowchart of embodiment 6 of the consumable goods online shopping system according to the present invention;

FIGS. 72A, 72B, 72C and 72D are operation flowcharts of another embodiment 6 of the consumable goods online shopping system according to the present invention;

FIG. 73 is an operation flowchart of another embodiment 6 of the consumable goods online shopping system according to the present invention;

FIG. 74 is an operation flowchart of another embodiment 6 of the consumable goods online shopping system according to the present invention;

FIG. 75 is an operation flowchart of embodiment 7 of the consumable goods online shopping system according to the present invention;

FIG. 76 is an operation flowchart of another embodiment 7 of the consumable goods online shopping system according to the present invention;

FIG. 77 is an operation flowchart of another embodiment 7 of the consumable goods online shopping system according to the present invention;

FIG. 78 is an operation flowchart of another embodiment 7 of the consumable goods online shopping system according to the present invention;

FIG. 79 is an operation flowchart of embodiment 8 of the consumable goods online shopping system according to the present invention;

FIG. 80 is an operation flowchart of embodiment 9 of the consumable goods online shopping system according to the present invention;

FIG. 81 is an operation flowchart of another embodiment 9 of the consumable goods online shopping system according to the present invention;

FIG. 82 is an operation flowchart of another embodiment 9 of the consumable goods online shopping system according to the present invention;

FIG. 83 is an operation flowchart of another embodiment 9 of the consumable goods online shopping system according to the present invention;

FIG. 84 is an operation flowchart of another embodiment 9 of the consumable goods online shopping system according to the present invention;

FIG. 85 is an operation flowchart of another embodiment 9 of the consumable goods online shopping system according to the present invention;

FIG. 86 is an operation flowchart of another embodiment 9 of the consumable goods online shopping system according to the present invention;

FIG. 87 is an operation flowchart of another embodiment 9 of the consumable goods online shopping system according to the present invention;

FIG. 88 is an operation flowchart of another embodiment 9 of the consumable goods online shopping system according to the present invention;

FIG. 89 is an operation flowchart of embodiment 10 of the consumable goods online shopping system according to the present invention;

FIG. 90 is an operation flowchart of another embodiment 10 of the consumable goods online shopping system according to the present invention;

FIG. 91 is an operation flowchart of another embodiment 10 of the consumable goods online shopping system according to the present invention;

FIG. 92 is an operation flowchart of embodiment 11 of the consumable goods online shopping system according to the present invention;

FIG. 93 is an operation flowchart of another embodiment 11 of the consumable goods online shopping system according to the present invention;

FIG. 94 is an operation flowchart of another embodiment 11 of the consumable goods online shopping system according to the present invention;

FIG. 95 is an operation flowchart of embodiment 12 of the consumable goods online shopping system according to the present invention;

FIG. 96 is an operation flowchart of another embodiment 12 of the consumable goods online shopping system according to the present invention;

FIG. 97 is an operation flowchart of another embodiment 12 of the consumable goods online shopping system according to the present invention;

FIG. 98 is an operation flowchart of embodiment 13 of the consumable goods online shopping system according to the present invention;

FIG. 99 is an operation flowchart of another embodiment 13 of the consumable goods online shopping system according to the present invention;

FIG. 100 is an operation flowchart of another embodiment 13 of the consumable goods online shopping system according to the present invention;

FIG. 101 is an operation flowchart of embodiment 14 of the consumable goods online shopping system according to the present invention;

FIG. 102 is an operation flowchart of another embodiment 14 of the consumable goods online shopping system according to the present invention;

FIG. 103 is an operation flowchart of another embodiment 14 of the consumable goods online shopping system according to the present invention;

FIG. 104 is an operation flowchart of another embodiment 14 of the consumable goods online shopping system according to the present invention;

FIG. 105 is an operation flowchart of another embodiment 14 of the consumable goods online shopping system according to the present invention;

FIG. 106 is an internal block diagram of communication information equipment used in each embodiment of the consumable goods online shopping system according to the present invention; and

5 FIG. 107 is a flowchart showing a flow of information between the communication information equipment, a portal server, and a mail order center server in the embodiment 13.

10 DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

The structure of the present invention is described using the function block diagrams.

To attain this and other objects, a consumable goods online shopping system according the present
15 invention, for example, as shown in FIG. 1 to FIG. 7, comprises communication information equipment 110 that consumes consumable goods, a portal server 120 to which data is sent from the communication information
20 equipment 110, an electronic settlement server 130 that performs the settlement of the transaction performed in the communication information equipment 110, a mail order center server 140 for mail-ordering the consumable goods, a recycling plant server 150
25 installed in a recycling plant of the consumable goods, and a merchandise control center server 160 installed in a merchandise control center of the consumable goods that interconnect via a network, wherein the

communication information equipment 110 comprises first information processing means 111 that performs processing of various information in the communication information equipment, first screen display means 112 that displays information-processed information on the screen, first key input/pointing means 113 that inputs information necessary for information processing with a key or by a pointing device on the screen, first printing means 114 that prints information-processed contents, first communicating means 115 that communicates the information-processed contents via the network, consumable goods consumption executing means 116 that executes processing which consumes the consumable goods, and first consumable goods remaining quantity detecting means 117 that detects a remaining quantity of the consumable goods, the portal server 120 comprises second information processing means 121 that performs the processing of various information in the portal server 120, second printing means 122 that displays the information-processed information on the screen, second key input/pointing means 123 that inputs the information necessary for information processing with the key or by the pointing device on the screen, second printing means 124 that prints the information-processed contents, second communicating means 125 that communicates the information-processed contents via the network, a second mail address database 126 in which a

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information processing means 141 that performs the processing of various information in the mail order center server, fourth screen display means 142 that displays the information-processed information on the screen, fourth key input/pointing means 143 that inputs the information necessary for information processing with the key/by the pointing device on the screen, fourth printing means 144 that prints the information-processed contents, fourth communicating means 145 that communicates the information-processed contents via the network, a fourth merchandise database 146 in which the data of the merchandise necessary for receiving the mail order including the price and the stock quantity of the consumable goods controlled in the mail order center, a fourth customer management database 147 in which the customer information of the customer of which the order request is given, and a fourth order table database 148 for storing the order table to which an order is given. The recycling plant server 150 comprises fifth information processing means 151 that performs the processing of various information in the recycling plant server, fifth screen means 152 that displays the information-processed information on the screen, fifth key input/pointing means 153 that inputs the information necessary for information processing with the key or by the pointing device on the screen, fifth printing means 154 that communicates the

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information-processed contents, fifth communicating means 155 that communicates the information-processed contents via the network, a fifth cartridge information reader 156 that reads the owner information stored in the storage area of the cartridge that is recovered in the recycling plant, and a fifth owner information management database 157 in which the number of recovery cartridges and the owner information are linked and stored. The merchandise control center server 160 comprises sixth information processing means 161 that performs the processing of various information in the merchandise control center server, sixth screen display means 162 that displays the information-processed information on the screen, sixth key input/pointing means 163 that inputs the information necessary for the information processing with the key or by the pointing device on the screen, sixth printing means 164 that prints the information-processed contents, fifth communicating means 165 that communicates the information-processed contents via the network, and a sixth merchandise inventory control database 166 in which the merchandise inventory control information of the consumable goods is recorded.

Further, as shown in FIG. 8 and FIG. 9, the information processing means 111 of the communication information equipment comprises owner information registering means 211 that stores the information for

identifying an owner including at least any one of a mail address, a postal number, an address, a name, and a telephone number in a storage area 212 as the owner information and mail address automatic registering means 213 that issues a mail address acquisition request to the portal server and automatically registers the mail address allocated and sent from the portal server in the mail address of the owner information by performing automatic connection when the mail address is not registered regarding the mail address. The second information processing means 121 of the portal server comprises mail address notification means 221 that receives the mail address acquisition request issued by the mail address automatic registering means 213 of the communication information equipment, retrieves the second mail address database 126, and allocates and reports an unregistered empty mail address as the mail address of the communication information equipment to which a request is given, automatic mail address allocation means 222 that automatically allocates the empty mail address for the allocation of the mail address, and empty mail address retrieval means 223 for supporting the allocation by the portal server administrator.

Further, as shown in FIG. 10 to FIG. 12, the second information processing means 121 of the portal server comprises mail order center information

registering means 311 that registers the information
about an order table order issue destination mail
order center by the input of the portal server
administrator using the second key input/pointing means
5 123. The fourth information processing means 141 of
the consumable goods mail order center server comprises
merchandise data registering means 321 that stores the
merchandise data necessary for receiving the mail order
including the price and the stock quantity input from
10 the server administrator and merchandise data sending
means 322 that sends the merchandise data of the fourth
merchandise data base 146 to the portal server of the
equipment manufacturer according to the instruction of
the server administrator. The second information
15 processing means 121 of the portal server comprises
consumable goods price data registering means 331 that
receives the price information and inventory
information of the consumable goods that are
periodically sent from the consumable goods mail order
20 center server 140 registered in the second mail address
database 126 and updates the second consumable goods
price database 129 and price information sorting means
332 that sorts the price information in the order of
the price for each area classified into a genre by
25 consumable goods and stores it associating the price
information and the mail order center name when the
second consumable goods price database 129 is updated.

Further, as shown in FIG. 13 and FIG. 14, the first information processing means 111 of the communication information equipment comprises remaining quantity alarming means 411 that detects the remaining quantity of the consumable goods by the first consumable goods remaining quantity detecting means 117 and displays a remaining quantity alarm when a value that goes below a fixed amount is detected, order start request notification automatic issuing means 412 that automatically issues an order start request notification of the consumable goods to the portal server 120 when the order start request notification automatic issue mode is ON after the remaining quantity alarm is displayed, order start request notification automatic issue mode setting means 413 that sets the order start request notification automatic issue mode to ON/OFF, order start request issuing means 414 that issues the order start request notification to the portal server according to the user instruction. The order start information sending means 415 comprises order start information generation means 421 that generates order start information which contains at least any one of machine type information of the equipment that enables the consumption amount of the consumable goods accumulated in the storage area and the discrimination of the consumable goods, the owner information stored in the storage area of the

equipment, and connection information into the mail
order center to which priority is given in the storage
area in the equipment, order start information
auxiliary input means 422 that urges the input of
5 missing information and performs the auxiliary input
processing of necessary information if the necessary
information is missing when the order start information
is generated, and order start information sending start
means 423 that starts the sending processing of the
10 generated order start information.

Further, as shown in FIG. 15 and FIG. 16, the
first information processing means 111 of the
communication information equipment comprises
consumption amount counting means 511 that increments
15 (counts up) the consumption amount of the consumable
goods and accumulates it in the storage area after the
first consumable goods consumption executing means 116
operates. The order start information sending means
415 comprises the order start information generation
20 means 421 that refers to the consumption amount of the
consumable goods counted by the consumption amount
counting means 511 and generates it as the order start
information. The second information processing means
121 of the portal server comprises order start
25 information acquiring means 521 that receives the order
start information sent from the side of the
communication information equipment and acquires the

order start information and consumption amount discount
calculating means 522 that calculates the discount that
corresponds to the consumption amount of the consumable
goods in the acquired order start information.

Further, as shown in FIG. 17 to FIG. 23, the second information processing means 121 of the portal server comprises order table creating means 611 that creates the order table based on the order start information acquired from the order start information acquiring means 521 and order table sending means 612 that sends the created order table to the communication information equipment. The order table creating means 611 comprises price information creating means 621 that creates an order table price information portion, delivery information portion creating means 622 that creates an order table delivery information portion, electronic settlement information portion creating means 623 that creates an order table electronic settlement information portion, and order issue portion creating means 624 that creates an order table order issue portion. The price information creation portion creating means 621 comprises price information acquiring means 631 that retrieves the second consumable goods price database 129 based on the machine type information in the order start information and acquires the price information and inventory information of the consumable goods that correspond to

the machine type information, the consumption amount discount calculating means 522 that calculates the discount that corresponds to the consumption amount of the consumable goods, recycling discount calculating means 632 that acquires the number of recovery cartridges stored in the second mail address database 126 and calculates the discount information that corresponds to the number of recovery cartridges based on the mail address written to the owner information in the order start information. The second information processing means 121 creates the price information portion for each mail order center according to the price information, inventory information, consumption amount discount information, recycling discount information, and number of orders setting area obtained by each of the means, obtains the price information acquired from the price information acquiring means 631 in the sequence sorted in the price order on the consumable price database, creates the price information portion in the state sorted according to the price, and creates the price information portion of the order table in which priority is given to the specified mail order center when the connection information to the mail order center server in the order start information is specified. The delivery information portion creating means 622 comprises delivery method specification creating means 641 that

creates a specification area which can specify the
delivery method including at least any one of mailing,
conveyance, and store-based delivery as the delivery
method, destination information specification area
5 creating means 642 that creates a destination
information specification area necessary for mailing
and conveyance, and a delivery store specification area
creating means 643 that creates a delivery store
specification area required for the store-based
10 delivery, and creates the specification area obtained
from each of the means as the delivery information
portion. At the creation of the destination
information specification area, destination information
default setting means 644 sets at least one of the
15 postal number, address, name, and telephone number
described in the owner information in the order start
information. At the creation of the delivery store
specification regional store information default
setting means 645 specifies a delivery area from the
20 postal number, address, and telephone number, retrieves
the second delivery store database 127 from the
specified area information, sets the store that is
doing business in the delivery area so that it can
preferentially be specified as a default, and always
25 updates and registers the latest data according to the
management of the portal server administrator regarding
the second delivery store database 127. The electronic

settlement information portion creating means 623
comprises authentication data input area creating means
651 that creates the area in which authentication data
required when the electronic settlement is performed in
5 the electronic settlement server and creates the
authentication data input area created by the
authentication data input area creating means 651 as
the electronic settlement information portion. The
order issue portion creating means 624 comprises order
10 issue specification area creating means 661 that
creates the area in which the activation of the order
issue instruction of a mail order can be specified and
coupon ticket issuing specification area creating means
662 that creates the area in which the activation of
15 the coupon ticket issuing instruction can be specified,
and creates the specification area created by the
coupon ticket issuing specification area creating means
662 as the order issue portion. The first information
processing means 111 of the communication information
20 equipment comprises order table receiving means 671
that receives the order table sent from the order table
sending means 612, order table display means 672 that
displays the received order table on the screen, order
table input means 673 that inputs the data necessary
25 for the order table on the displayed screen, order
issue notification means 674 that sends the order issue
notification and the order table to which the necessary

data is input to the portal server of the equipment manufacturer when the order issue instruction is given, coupon ticket issuing notification means 675 that sends the coupon ticket issuing notification and the order table to the portal server of the equipment manufacturer, and order canceling means 676 that cancels an order.

Further, as shown in FIG. 24 and FIG. 25, the second information processing means 121 of the portal server comprises coupon ticket issuing notification reception means 711 that receives the coupon ticket notification and the order table sent from the coupon ticket issuing notification means 675, coupon issue processing means 712 that receives the coupon ticket issuing notification and the order table and issues the coupon information based on the consumption amount discount information and the recycling discount information provided in the order table price information portion, and coupon information sending means 713 that sends the issued coupon information to the communication information equipment 110. The first information processing means 111 of the communication information equipment comprises coupon information receiving means 721 that receives the coupon information sent by the coupon information sending means 713 and stores it in the storage area of the equipment, coupon information updating means 722 that

5 generated from the consumption amount discount and the coupon information stored in the storage area, and online coupon ticket printing means 723 that prints the coupon information stored in the storage area as the coupon ticket by the printing means.

Further, as shown in FIG. 26, the first information processing means 111 of the communication information equipment comprises mail order center registering means 811 that specifies a specific mail order center from a plurality of mail order centers provided in the price information portion of the order table displayed by the order table display means 672 and can register the plurality of mail order centers specified in the storage area of the equipment, a mail order center registration memory 810 that is the storage area of the equipment in which the mail order centers are registered, mail order center registration deletion means 812 that registers and then deletes the specific mail order center from the mail order centers registered in the mail order center registration memory 810, mail order center specification means 813 that can preferentially specify the specific mail order center from the plurality of mail order centers registered in

the mail order center registration memory 810, and mail order center priority releasing means 814 that can release priority specification.

Further, as shown in FIG. 27 to FIG. 32, the

5 second information processing means 121 of the portal server comprises back margin registering means 911 at the side of the manufacturer that registers the information about brokerage and discount fee that match the handling amount determined according to the

10 arrangement with each mail order center by the data input of the portal server administrator, order issue notification receiving means 912 that receives the order issue notification from the communication information equipment 110, electronic settlement

15 acknowledgement requesting means 913 that receives the order issue notification, creates acknowledgement information based on authentication data input to the order table and sends it to the electronic settlement server 130, and performs the electronic settlement

20 acknowledgment request for order issue merchandise to the specified mail order center, order issue request mediating means 914 that receives the acknowledgment result notification information from the electronic settlement server 130 and performs the mediation to the

25 mail order center server 140, received order acknowledged notification receiving means 915 that receives the received order acknowledged notification

from the mail order center server 140, and order issue completion notification sending means 916 that receives the received order acknowledged notification and issues an order issue completion notification to the

5 communication information equipment 110. The order issue request mediating means 914 comprises number of mediation items counting means 921 that counts the number of mediation items for each mail order center when the electronic settlement is acknowledged

10 according to the acknowledgment result notification information from the electronic settlement server 130, order issue request registering means 922 that registers the number of orders counted by the number of mediation items counting means 921 in the second mail

15 order center registration information database 128 for each mail order center together with the order table of the order of which the order issue request is received, order issue request order table sending means 923 that sends the order table of which the order issue is

20 received to the mail order center server 140, and electronic settlement not-acknowledged notification means 924 that sends an electronic settlement not-acknowledged notification to the first communication information equipment 110 when the electronic

25 settlement is not acknowledged. The second information processing means 121 of the portal server comprises brokerage calculating means 918 at the side of the

manufacturer that calculates the brokerage paid from
the side of the mail order center according to the
number of orders that is counted by the number of
mediation items counting means 922 and registered in
5 the mail order center registration information database
128 by the order issue request registering means 923
and order issue discount calculating means 917 at the
side of the manufacturer that calculates the discount
fee paid to the mail order center in accordance with
10 the number of mediation items. The third information
processing means 131 of the electronic settlement
server comprises electronic settlement acknowledgment
request receiving means 951 that receives an electronic
settlement acknowledgment request from the portal
15 server 120, electronic settlement means 952 that
performs the electronic settlement based on the
acknowledgment information and the electronic
settlement database and electronic settlement
acknowledgment result information notification means
20 953 that sends a result of the electronic settlement to
the portal server as the acknowledgment result
information notification. The first information
processing means 111 of the communication information
equipment comprises order issue completion notification
25 receiving means 961 that receives the order issue
completion notification from the portal server,
electronic settlement not-acknowledged notification

receiving means 962 that receives the electronic
settlement not-acknowledged notification, and order
issue response notification means 963 that displays
separately received notification contents. The fourth
5 information processing means 141 of the mail order
center server comprises back margin registering means
931 at the side of the mail order center that registers
the information about brokerage and discount fee that
match the handling amount determined according to the
10 arrangement with each mail order center by the data
input of the portal server administrator, order issue
request order table receiving means 932 that receives
the order issue request from the portal server 120, and
received order acknowledged notification sending means
15 934 that sends the received order acknowledged
notification to the portal server 120 when the order is
given. The received order means 933 comprises number
of received orders counting means 941 that counts the
number of order issue requests from the portal server
20 120 and received order request registering means 942
that registers the number of received orders counted by
the number of received orders in the fourth order table
database 148 together with the order table of the order
of which the order issue request is given. The fourth
25 information processing means 141 of the mail order
center server comprises brokerage calculating means 935
at the side of the mail order center that calculates

brokerage paid to the equipment manufacturer in accordance with the number of received orders that is counted by the number of orders counting means 941 and registered in the order table database 148 by the
5 received order request registering means 942 and order issue discount calculating means 936 at the side of the mail order center that calculates the discount fee paid from the side of the equipment manufacturer according to the number of received orders.

10 Further, as shown in FIG. 33 and FIG. 34, the second information processing means 121 of the portal server comprises settlement information comprises settlement information calculating means 1011 at the side of the manufacturer that calculates monthly
15 settlement information for each mail order center on a monthly settling day or according to the instruction of the server administrator, settlement information sending means 1012 at the side of the manufacturer that sends the calculated settlement information to each
20 mail order center, settlement information backup means 1013 at the side of the manufacturer that backs up all of the settlement information total, settlement information, and the handling order table within a settling month into the backup area of the second mail
25 order center registration information database 128 for each mail order center, settlement information clearing means 1014 at the side of the manufacturer 1014 that

clears the number of orders and an issued order table within the predetermined period when the settlement information is backed up according to the settlement information by the settlement information backup means at the side of the manufacturer, and settlement information utility means 1015 at the side of the manufacturer that prints and deletes the information backed up in the backup area according to the instruction of the portal server administrator. The settlement information calculating means 1011 at the side of the manufacturer comprises consumption discount price total calculating means 1021 at the side of the manufacturer that calculates the consumption discount price total recorded in the order table as the settlement information against all the order tables of the mail order center specified in the second mail order center registration database 128, recycling discount price total calculating means 1022 that calculates the recycling discount price total recorded in the order table as the settlement information, the brokerage calculating means 916 at the side of the manufacturer that calculates the discount fee paid to the mail order center in accordance with the number of mediation items as the settlement information, the settlement information totaling means 1023 at the side of the manufacturer that calculates the value in which the order issue discount price is subtracted from the

consumption discount price total, recycling discount price, and order issue brokerage as the settlement information total.

Further, as shown in FIG. 35 and FIG. 36, the
5 fourth information processing means 141 of the mail
order center server comprises merchandise conveyance
procedure means 1111 that performs a merchandise
conveyance procedure based on the delivery method
specified in the order table against the order table of
10 which the conveyance procedure registered in the fourth
order table database 148 according to the instruction
of the sever administrator is not terminated,
conveyance procedure end registering means 1112 that
registers the conveyance procedure end in the order
15 table database against the order table of which the
merchandise procedure is terminated, and stored
merchandise order issuing means 1113 that performs the
order issue of stored merchandise to the portal server
120 according to the instruction of the server
20 administrator when no remaining stock quantity is
reported by the merchandise conveyance procedure means
1111. The merchandise conveyance procedure means 1111
comprises stock quantity control means 1121 that
updates the stock quantity in the fourth merchandise
25 database 146 in accordance with the number of received
orders and reports the information about no remaining
stock quantity to the server administrator of the mail

order center when the stock quantity is exhausted,
merchandise data sending means 1122 that receives the
update of the stock quantity and sends the updated
merchandise data in the fourth merchandise database 146
5 to the portal server 120 of the equipment manufacturer,
and conveyance destination label printing means 1123
that prints the postal number, address, and name of the
conveyance destination on a label paper based on the
owner information of the order table.

10 Further, as shown in FIG. 37 and FIG. 38, the
second information processing means 121 of the portal
server comprises stored merchandise order issue
receiving means 1211 that receives the order issue of
stored merchandise ordered from the stored merchandise
15 order issuing means 1113 and stored merchandise order
issue mediating means 1212 that mediates the received
order of the stored merchandise of which the received
order is given and sends the order table to the
merchandise control center server 160 of the consumable
20 goods. The sixth information processing means 161 of
the merchandise control center server of the consumable
goods comprises stored merchandise order table received
order means 1221 that receives the order table of the
stored merchandise by the stored merchandise order
25 issue mediating means 1212 and stored merchandise
conveyance means 1222 that updates the sixth
merchandise inventory control database 166 in which the

merchandise inventory control information of the consumable goods is stored and conveys the received order stored merchandise to the mail order center of which the order issue request is given.

5 Further, as shown in FIG. 39 and FIG. 40, the fourth information processing means 141 of the mail order center server comprises money-received confirmation information adding means 1311 that adds money-received confirmation information to the order
10 table of which the money-received to an order is checked, on a monthly settling day or according to the instruction of the server administrator, settlement information calculating means 1312 at the side of the mail order center that calculates monthly settlement
15 information, settlement information sending means 1313 at the side of the mail order center that sends the calculated settlement information to the equipment manufacturer portal server 120, settlement information backup means 1314 at the side of the mail order center
20 that backs up all of the settlement information total, settlement information, and received order table handled within a settling month in the backup area of the fourth order table database 148, settlement information clearing means 1315 at the side of the mail
25 order center that clears the number of monthly received orders issued and received order table when the settlement information is backed up by the backup means

FIG. 39

1314, and settlement information utility means 1316 at the side of the mail order center that prints and deletes the information backed up in the backup area according to the instruction of the portal server administrator. The settlement information calculating means 1312 at the side of the mail order center comprises money-not-received calculating means 1321 that calculates the total of the money-not-received order table to which the money-received confirmation information is not added against all the monthly received order tables registered in the fourth order table database 148, money-not-received order table creating means 1322 that creates a list of money-not-received order tables, money-received total calculating means 1323 that calculates the total of the merchandise price of the money order table to which the money-received confirmation information is added, consumption discount price total calculating means 1324 at the side of the mail order center that calculates the total of the consumption discount price recorded in the order table as the settlement information, recycling discount price total calculating means 1325 at the side of the mail order center that calculates the total of the consumption discount price recorded in the order table as the settlement information, the brokerage calculating means 935 at the side of the mail order center that calculates the brokerage paid to the

equipment manufacturer in accordance with the number of
orders, the order issue discount calculating means 936
at the side of the mail order center that calculates
the discount price paid to the side of the mail order
5 center in accordance with the number of mediation
items, and settlement information total calculating
means 1326 at the side of the mail order center that
calculates the value in which an order issue discount
price is subtracted from the total of a consumption
10 discount price, a recycling discount price, and order
issue brokerage as the settlement information total.

Further, as shown in FIG. 41 to FIG. 44, the first
information processing means 11 of the communication
information equipment comprises owner cartridge storage
15 means 1411 that stores the owner information in the
storage area at the side of the cartridge when
consumable goods are of a cartridge type and there is
the area in which the owner information is recorded at
the side of the cartridge. The fifth information
20 processing means 151 of the recycling plant server of
the consumable goods comprises cartridge owner
information reading means 1421 that reads the owner
information stored in the storage area of the recovered
cartridge, by the fifth cartridge information reader
25 156, owner information management database registering
means 1422 that obtains the mail address information
from the read owner information and registers it in the

fifth owner information management database 157,
recycling discount information sending means 1423 that
periodically sends the mail address information and the
recovery cartridge information registered in the fifth
5 owner information management database 157 to the portal
server 120 of the equipment manufacturer, owner
information management database clearing means 1424
that clears the mail address information and the
recovery cartridge information already sent in the
10 fifth owner information management database 157 after
sending processing is performed by the recycling
discount information sending means 157 from the owner
information management database, and owner information
management database utility means 1425 that displays
15 and deletes the contents of the owner information
management database according to the instruction of the
server administrator. The owner information management
database registering means 1422 comprises cartridge
information initializing means 1431 that sets the
20 recovery cartridge information to 1 and registers it
the fifth owner information management database 157
together with the mail address database 157 when the
mail address information in the owner information read
by the cartridge owner reading means 1421 is not
25 registered in the fifth owner information management
database 157, and recovery cartridge information
updating means 1432 that increments (counts up) and

25

transfer necessary information between the first electronic equipment A and the second electronic equipment B. The second electronic equipment B comprises the first information processing means 111, the first screen display means 112, the first key input/pointing means 113, the first communicating means 115, and second electronic equipment connecting means 1521 that performs the connection of the equipment in order to transfer necessary information between the first electronic equipment and the second electronic equipment A.

Besides, FIG. 1 and FIG. 2 to FIG. 45 are a block diagram of a consumable goods online shopping system according to one embodiment of the present invention.

Further, as shown in FIG. 1 the communication information equipment 110 according to the present embodiment is communication information equipment that is connected to a portal server 120 to which data is sent, the electronic settlement server 130 that performs the settlement of the transaction performed, the recycling plant server 150 installed in the recycling plant of the consumable goods, and the merchandise control center server 160 installed in the merchandise control center of the consumable goods, where as shown in FIG. 2, it comprises information processing means 111 that performs the processing of various information in the communication information

equipment, screen display means 112 that displays the
information-processed information on the screen, key
input/pointing means 113 that inputs the information
necessary for the information processing with the key
5 or by the pointing device on the screen, printing means
114 that prints the information-processed contents,
communicating means 115 that communicates the
information-processed contents via the network,
consumable goods consumption executing means 116 that
10 executes the processing that consumes the consumable
goods, and consumable goods remaining quantity
detecting means 117 that detects the remaining quantity
of the consumable goods.

Further, as shown in FIG. 8, the information
15 processing means 111 comprises owner information
registering means 211 that stores the information for
identifying an owner including at least any one of a
mail address, a postal number, an address, a name, and
a telephone number in the storage area of the equipment
20 as the owner information and mail address automatic
registering means 213 that performs automatic
connection to the portal server, issues a mail address
acquisition request to the portal server, and
automatically registers the mail address allocated and
25 sent by the portal server in the mail address of the
owner information.

Further, as shown in FIG. 13, the information

processing means 111 comprises remaining quantity
alarming means 411 that detects the remaining quantity
of the consumable goods by the consumable goods
remaining quantity detecting means 117 and displays a
5 remaining quantity alarm when the value that goes below
a fixed amount is detected, an order start request
notification automatic issuing means that automatically
issues a consumable goods order start request
notification to the portal server when the order start
10 request notification automatic issue mode is ON after
the remaining quantity amount alarm is displayed, order
start request notification automatic issue mode setting
means 413 that sets the order start request
notification automatic issue mode to ON/OFF, order
15 start request notification means 414 that issues the
order start request notification to the portal server
according to the user instruction, and order start
information sending means 415 that sends necessary
information to the portal server as order start
20 information according to the issue of the order start
request notification. As shown in FIG. 14, the order
start information sending means 415 comprises order
start information generating means 421 that generates
the order start information including at least any one
25 of the machine type information of the equipment that
enables the discrimination of the consumption amount of
the consumable goods accumulated in the storage area

and the discrimination of the consumable goods, the owner information stored in the storage of the equipment, and the connection information to the mail order center that is preferentially specified in the storage area of the equipment, order start information auxiliary input means 422 that urges the input of missing information and performs the auxiliary input processing of necessary information when the necessary information is missing at the generation of the order start information, and order start information sending start means 423 that starts the sending processing of the generated order start information.

Further, as shown in FIG. 15, the information processing means 111 comprises consumption amount counting means 511 that increments (counts up) the consumption amount of the consumable goods after the consumable goods consumption executing means 116 operates, and as shown in FIG. 14, the order start information sending means 415 comprises order start information generating means 421 that refers to the consumption amount of the consumable goods counted by the consumption amount counting means 511 and generates it as the order start information.

Further, as shown in FIG. 23, the information processing means 111 comprises order table receiving means 671 that receives the sent order table, order table display means 672 that displays the displayed

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5 notification means 674 that sends an order issue
notification and the order table to which necessary
data is input to the portal server of the equipment
when an order issue instruction is given, coupon ticket
notification means 675 that sends a coupon ticket
10 issuing notification and the order table to the portal
server when a coupon ticket issuing instruction is
given, and order canceling means 676 that cancels the
order.

Further, as shown in FIG. 26, the information processing means 111 comprises mail order center registering means 811 that specifies a specific mail order center from a plurality of mail order centers provided in the price information portion of the order table displayed by the order table display means 672 and can register the plurality of mail order centers specified in the storage area of the equipment, mail order center registration deletion means 812 that registers and deletes the specific mail order center from a mail order center registration memory 810 that is the storage area of the equipment in which the mail order center is registered and the mail order center registered in the mail order center registration

memory, mail order center specification means 813 that
can preferentially specify the specific mail order
center from the plurality of mail order centers
registered in the mail order center registration
5 memory, and mail order center priority release means
814 that can release preferential specification.

Further, as shown in FIG. 25, the information
processing means 111 of the communication information
equipment 110 comprises coupon information receiving
10 means 721 that receives the sent coupon information and
stores it in the storage area of the equipment, coupon
information updating means 722 that calculates a
consumption amount discount based on the discount rate
that matches the consumption amount stored previously
15 in the storage area of the equipment, compares the
coupon information generated from the consumption
amount discount and the coupon information stored in
the storage area and changes the coupon information
stored in the storage area to the coupon information
20 that is advantageous for the discount, and online
coupon ticket printing means 723 that prints the coupon
information stored in the storage area as the coupon
ticket by the printing means.

Further, as shown in FIG. 32, the information
25 processing means 111 comprises order reception
acknowledgment notification receiving means 961 that
receives an order issue completion notification from

the portal server 120, electronic settlement not-
acknowledged notification receiving means 962 that
receives an electronic settlement not-acknowledged
notification, and an order issue response notification
5 display means 963 that displays separately received
notification contents.

Further, as shown in FIG. 41, the information
processing means 111 comprises owner information
cartridge storage means 1411 that also stores owner
10 information in the storage area at the side of the
cartridge when the consumable goods are of a cartridge
type and there is an area in which the owner
information is recorded at the side of the cartridge.

Further, as shown in FIG. 45, provided are
15 electronic equipment A1510 having the function that
performs the consumption execution and remaining
quantity detection of the consumable goods and
electronic equipment A1520 having the function that
performs the processing necessary for performing the
20 online shopping. The electronic equipment A1510
comprises the printing means 114 , the consumable goods
consumption executing means 116, the consumable goods
remaining quantity detecting means 117, and electronic
equipment connecting means 1511 that performs the
25 connection of the equipment in order to transfer the
necessary information between the electronic equipment
A1510 and the electronic equipment B1520. The

electronic equipment B1520 comprises the information processing means 111, the screen display means 112, the key input/pointing means 113, the communicating means 115, and electronic equipment connecting means 1521
5 that performs the connection of the equipment in order to transfer the information necessary for the electronic equipment B1520 and the electronic equipment A1510.

Further, as shown in FIG. 1, the portal server 120
10 according to the present embodiment is a portal server to which data is sent from the communication information equipment 110 connected to communication information equipment that consumes consumable goods, an electronic settlement server 130 that performs the
15 settlement of the transaction performed in the communication information equipment, a mail order center server 140 for mail-ordering the consumable goods, a recycling plant server 150 installed in a recycling plant of the consumable goods, and a
20 merchandise control center server 150 installed in a merchandise control center of the consumable goods via a network 100, wherein as shown in FIG. 3, it comprises information processing means 121 that performs processing of various information in the portal server
25 120, screen display means 122 that displays information-processed information, key input/pointing means 123 that inputs information necessary for

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information processing with a key or by a pointing
device on the screen, communicating means 125 that
communicates information-processed contents via the
network, a mail address database 126 in which the mail
5 address and recovery cartridge information of the
communication information equipment 110 connected to
the portal server are stored, a delivery store database
127 in which delivery stores of the consumable goods
are stored for each area, a mail order center
10 registration information database 128 in which the
information of the mail order center that is connected
to the portal server and from which the consumable
goods are ordered, and a consumable goods price
database 129 in which individual merchandise price
15 information is stored for each mail order center.

Further, as shown in FIG. 9, the information
processing means 121 comprises mail address
notification means 221 that receives a mail address
acquisition request issued by the mail address
20 automatic registering means of the communication
information equipment 110, retrieves a mail address
database 126, and allocates and reports an unregistered
empty mail address as the mail address of the
communication information equipment, automatic mail
25 address allocation means 222 that automatically
allocates the empty mail address for the allocation of
the mail address, and empty mail address retrieval

means 223 for supporting allocation by the portal administrator.

Further, as shown in FIG. 10, the information processing means 121 comprises mail order center information registering means 311 that registers the information about the order issue destination mail order center of an order table in a mail order center database 128 according to the input of the portal server administrator using the key input/pointing means 123, consumable goods price data registering means 331 that receives the price information and inventory information of the consumable goods which are periodically sent from the consumable goods mail order center server registered in the second mail order center registration database and updates a consumable goods price database 129 and price information sorting means 332 that sorts them for each area categorized by consumable goods in the order of the price and storing them by associating the price information and the mail order center name (FIG. 12).

Further, as shown in FIG. 16, the information processing means 121 comprises order start information acquiring means 521 that receives order start information sent from the side of the communication information equipment and acquires the order start information and consumption amount discount calculating means 522 that calculates the discount that matches the

consumption amount of the consumable goods in the acquired order start information.

Further, as shown in FIG. 17, the information processing means 121 comprises order table creating means 611 that creates an order table based on the order start information acquired by the order start information acquiring means and order table sending means 612 that sends the created order table to the communication information equipment. As shown in FIG. 18, the order table creating means 611 comprises price information portion creating means 621 that creates the price information portion of the order table, delivery information portion creating means 622 that creates the delivery information portion of the order table, electronic settlement information portion creating means 623 that creates the electronic settlement information of the order table, and order issue portion creating means 624 that creates the order issue portion of the order table. As shown in FIG. 19, the price information portion creating means 621 comprises price information acquiring means 631 that retrieves the consumable goods price database 129 based on the machine type information in the order start information and acquires the price information and inventory information of the consumable goods that match the machine type information, the consumption amount discount calculating means 522 that calculates

the discount information that matches the consumption
amount of the consumable goods, and recycling discount
calculating means 632 that acquires the number of
recovery cartridges stored in the mail address database
5 120 and calculates the discount that matches the number
of recovery cartridges. The information processing
means 121 creates the price information portion for
each mail order center according to the price
information, inventory information, consumption amount
10 discount information, recycling discount information,
and number of orders setting area obtained by each of
the means, acquires the price information acquired by
the price information acquiring means in the order
sorted in the price order on the consumable goods price
15 database, creates the price information portion in the
state sorted according to the price and creates the
price information portion of the order table of which
priority is given to the specified mail order center
when there is a specification in the connection
20 information to the mail order center server in the
start information. As shown in FIG. 20, the delivery
information portion creating means 622 comprises
delivery method specification area means 641 that
creates the specification area in which the delivery
25 method including at least any one of mailing,
conveyance, and store-based delivery as the
specification of the delivery method, destination

information specification area creating means 642 that
creates the destination information specification area
required for the mailing and conveyance, and delivery
store specification area creating means 643 that
5 creates the delivery store specification area required
for the store-based delivery, and creates the
specification area obtained by each of the means as the
delivery information portion. At the creation of the
destination information specification area, destination
10 information default setting means 644 sets at least one
of the postal number, address, name, and telephone
number written to the owner information in the order
start information as a default value. At the creation
of the delivery store specification regional store
15 information default setting means 645 specifies a
delivery area from the postal number, address, and
telephone number, retrieves a delivery store database
127 from the specified area information, sets the store
that is doing business at the delivery area so that it
20 can preferentially be specified as a default, and
always updates and registers the latest data according
to the management of the portal server administrator
concerning the delivery store database 127. As shown
in FIG. 21, the electronic settlement information
25 portion creating means 623 comprises authentication
data input area creating means 651 that creates the
area in which the authentication data required for

performing an electronic settlement in the electronic settlement server and creates the authentication data input area created by the authentication data area input area creating means as the electronic settlement information portion. As shown in FIG. 22, the order issue portion creating means 624 comprises order issue specification area creating means 661 that creates the area in which the activation of a mail order issue instruction can be specified and coupon ticket issuing specification area creating means 662 that creates the area in which the activation of a coupon ticket issuing instruction can be specified, and creates the specification area created by the coupon ticket issuing specification area creating means as the order issue portion.

As shown in FIG. 24, the information processing means 121 comprises a coupon issuing notification reception means 711 that receives a coupon issuing notification and an order table, a coupon issuing means 712 that receives the coupon issuing notification and the order table and issues coupon information based on consumption discount information and recycling discount information included in the order table, and a coupon information sending means 713 that sends the issued coupon information to the communication information equipment.

Further, as shown in FIG. 27, the information

processing means 121 comprises back margin registering means 911 at the side of the manufacturer that registers the information about brokerage and discount fee that match the handling amount determined according to the arrangement with each mail order center by the data input of the portal server administrator, order issue notification receiving means 912 that receives an order issue notification from the communication information equipment, electronic settlement acknowledgement requesting means 913 that receives the order issue notification, creates acknowledgement information based on authentication data input to the order table, sends it to the electronic settlement server, and performs an electronic settlement acknowledgement request for order issue merchandise to the specified mail order center, order issue request mediating means 914 that receives acknowledgment result notification information from the electronic settlement server and performs mediation to the mail order center server, received order acknowledged notification receiving means 915 that receives a received order acknowledgment notification from the mail order center server, and order issue completion notification sending means 916 that receives the received order acknowledgment notification and an order issue completion notification to the communication information equipment. As shown in FIG. 28, the order

25

issue discount calculating means 917 at the side of the manufacturer that calculates the discount paid to the mail order center in accordance with the number of mediation items.

5 Further, as shown in FIG. 32, the information processing means 121 of the portal server comprises settlement information calculating means 1012 at the side of the manufacturer that calculates monthly settlement information for each mail order center on a
10 monthly settling day or according to the instruction of the server administrator, settlement information sending means 1011 at the side of the manufacturer that sends the calculated settlement information to each mail order center, settlement information backup means
15 1013 at the side of the manufacturer that backs up all of the settlement information total, settlement information, and order table handled within a settling month to the backup area of the second mail order
20 order center, settlement information clearing means 1014 at the side of the manufacturer that clears the number of orders and an issued order table within the predetermined period when the settlement information is backed up by the settlement information backup means
25 1015 at the side of the manufacturer, and settlement information utility means at the side of the manufacturer that prints and deletes the information

backed up in the backup area according to the
instruction of the portal server administrator. As
shown in FIG. 34, the settlement information
calculating means 1011 at the side of the manufacturer
5 comprises consumption discount price total calculating
means 1021 at the side of the manufacturer that
calculates the total of consumption discount price
recorded in the order table as the settlement
information against all the order tables of the mail
10 order center specified in the mail order center
registration database, recycling discount price total
calculating means 1022 that calculates the total of the
recycling discount price recorded in the order table as
the settlement information, the brokerage calculating
15 means 916 at the side of the manufacturer that
calculates the brokerage paid from the side of the mail
order center as the settlement information in
accordance with the number of orders, the order issue
discount calculating means 917 at the side of the
20 manufacturer that calculates the discount paid to the
mail order center as the settlement information in
accordance with the number of mediation items, and
settlement information total calculating means 1023 at
the side of the manufacturer that calculates the value
25 in which the order issue discount price is subtracted
from the total of a consumption discount price, a
recycling discount price, and order issue brokerage as

the settlement information total.

Further, as shown in FIG. 37, the information processing means 121 comprises stored merchandise order issue receiving means 1211 that receives an order issue of stored merchandise of which order issue is given by the stored merchandise order issuing means and stored merchandise order issue mediating means 1212 that mediates a received order of stored merchandise and sends an order table to the merchandise control center server of the consumable goods.

Further, the electronic settlement server 130 according to this embodiment is an electronic settlement server that performs the settlement of the transaction performed in the communication information equipment 110 connected to communication information equipment 110 that consumes the consumable goods, a portal server 120 to which data is sent from the communication information equipment, a mail order center server 140 for mail-ordering the consumable goods, a recycling plant server 150 installed in a recycling plant of the consumable goods, and a merchandise control center server 150 installed in a merchandise control center of the consumable goods via a network. As shown in FIG. 4, the server 130 comprises third information processing means 131 that performs an electronic settlement based on the authentication information input by the input means on

equipment 110 that consumes the consumable goods, a
portal server 120 to which data is sent from the
communication information equipment, an electronic
settlement server 130 that performs the settlement of
5 the transaction performed in the communication
information equipment, a recycling plant server 150
installed in the recycling plant of the consumable
goods, and a merchandise control center server 160
installed in the consumable goods via a network. As
10 shown in FIG. 5, the server 140 comprises information
processing means 141 that performs processing of each
information in the mail order center server, screen
display means 142 that displays information-processed
information on the screen, key input/pointing means 143
15 that inputs information necessary for information
processing with a key/by a pointing device on the
screen, printing means 144 that prints information-
processed contents, communicating means 145 that
communicates the information-processed contents via the
20 network 100, merchandise database 146 in which the
merchandise data required for receiving the mail order
including the price and the stock quantity of the
consumable goods controlled in the mail order center, a
customer management database 147 in which the customer
25 information of the customer whose order request is
given, and a order table database 148 for storing the
order table for which an order is given.

Further, as shown in FIG. 11, the information processing means 141 comprises merchandise data registering means 221 that registers the merchandise data required for receiving a mail order in the merchandise database 146 including the price and the stock quantity input from the server administrator and merchandise data sending means 322 that sends the merchandise data of the merchandise database 146 to the portal server of the equipment manufacturer according to the instruction of the server administrator.

Further, as shown in FIG. 29, the information processing means 141 comprises back margin registering means 931 at the side of the manufacturer that registers the information about brokerage and discount fee that match the handling amount determined according to the arrangement with each mail order center by the data input of the server administrator of each mail order center, order issue request order table receiving means that receives an order issue notification from the portal server, order issue receiving means 933 that receives an order issue request, and order received acknowledgement notification sending means that sends an received order acknowledgment notification to the portal server when it is received. As shown in FIG. 30, the received order means 933 comprises number of received orders counting means 941 that counts the number of order issue request items from the portal

5 database 148 together with the order table of the order
of which the order issue request is received. As shown
in FIG. 29, the information processing of the mail
order center server comprises brokerage calculating
means 935 at the side of the mail order center that
0 calculates the brokerage paid to the equipment
manufacturer in accordance with the number of received
orders counted by the number of orders counting means
registered in the order table database by the received
order request registering means and order issue
5 discount calculating means 936 at the side of the mail
order center that calculates the discount paid from the
side of the equipment manufacturer in accordance with
the number of received orders.

Further, as shown in FIG. 35, the information processing means 141 comprises merchandise conveyance procedure means 111 that performs the conveyance procedure of merchandise based on the delivery method specified in the order table against the order table for which the conveyance procedure registered in the order table database 148 is not terminated according to the instruction of the server administrator, conveyance procedure termination registering means 1112 that

registers the termination of the conveyance procedure in the order table database against the order table for which the merchandise conveyance procedure is terminated, and stored merchandise order issuing means 1113 that performs an order issue of stored merchandise against the portal server according to the instruction of the server administrator when no stock remaining quantity is reported by the merchandise conveyance procedure means 1111. As shown in FIG. 36, the merchandise conveyance procedure means 1111 comprises stock quantity control means 1121 that updates a stock quantity in the merchandise database 148 in accordance with the number of received orders and reports the information about no stock remaining quantity to the server administrator of the mail order center when the stock quantity is exhausted, merchandise data sending means 1122 that receives the update of the stock quantity and sends the updated merchandise data of the merchandise database 146 to the portal server of the equipment manufacturer, and conveyance destination label printing means 1123 that prints the postal number, address, and name of a conveyance destination on a label paper based on the owner information of the order table.

Further, as shown in FIG. 39, the information processing means 141 of the mail order center server comprises money-received confirmation information

adding means 1311 that adds money-received confirmation information to the order table of which the money received for an order is checked at a monthly settling day or according to the instruction of the server administrator, settlement information calculating means 1312 at the side of the mail order center that calculates monthly settlement information, settlement information sending means 1313 at the side of the mail order center that sends the calculated settlement information to the equipment manufacturer portal server, settlement information backup means 1314 at the side of the mail order center that backs up all of the settlement information total, settlement information, and received order table handled within a settling month in the backup area of the order table database 148, settlement information clearing means 1315 at the side of the mail order center that clears the number of monthly received orders issued and received order table when the settlement information is backed up by the backup means, and settlement information utility means 1316 at the side of the mail order center that prints and deletes the information backed up in the backup area according to the instruction of the portal server administrator. As shown in FIG. 40, the settlement information calculating means 1312 at the side of the mail order center comprises money-not-received calculating means 1312 that calculates the total of the

money-not-received order table to which the money-
received confirmation information is not added against
all the monthly received order tables registered in the
fourth order table database, money-not-received order
5 table creating means 1322 that creates a list of money-
not-received order tables, money-received total
calculating means 1323 that calculates the total of the
merchandise price of the money order table to which the
money-received confirmation information is added,
10 consumption discount price total calculating means 1324
at the side of the mail order center that calculates
the total of the consumption discount price recorded in
the order table as the settlement information,
recycling discount price total calculating means 1325
15 at the side of the mail order center that calculates
the total of the consumption discharge recorded in the
order table as the settlement list, the brokerage
calculating means 935 at the side of the mail order
center that calculates the brokerage paid to the
20 equipment manufacturer in accordance with the number of
orders, order issue discount calculating means 936 at
the side of the mail order center that calculates the
discount paid to the side of the mail order center in
accordance with the number of mediation items, and
25 settlement information total calculating means 1326 at
the side of the mail order center that calculates the
value in which the order issue discount price is

subtracted from the total of a consumption discount price, a recycling discount price, and order issue brokerage as the settlement information total.

Further, as shown in FIG. 1, the recycling plant
5 server 150 according to the present embodiment is a recycling plant server installed in the recycling plant of the consumable goods connected to communication information equipment 110, a portal server 120 to which data is sent from the communication information
10 equipment, an electronic settlement server 130 that performs the settlement of the transaction performed in the communication information equipment, a mail order center server 140 for mail-ordering the consumable goods, and a merchandise control center server 160
15 installed in the recycling plant of the consumable goods via a network 100. As shown in FIG. 6, the server 150 comprises information processing means 151 that performs processing of various information in the recycling plant server, screen display means 152 that
20 displays information-processed information on the screen, fifth key input/pointing means 153 that inputs the information necessary for information processing with a key/by pointing device on the screen, printing means 154 that prints information-processed contents,
25 communicating means 155 that communicates the information-processed contents via the network, fifth cartridge information reader 156 that reads the owner

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information stored in the storage area of the cartridge recovered in the recycling plant, and an owner information management database 157 in which the number of recovery cartridges and the owner information are linked and stored.

Further, as shown in FIG. 42, the information processing means 151 comprises cartridge owner information reading means 1421 that reads the owner information stored in the storage area of the recovered cartridge by the cartridge information reader 156, owner information management database registering means 1422 that acquires mail address information from the read owner information and registers it in the owner information management database 157, recycling discount information sending means 1423 that periodically sends the mail address information and recovery cartridge information registered in the owner information management database 157 to the portal server of the equipment manufacturer as recycling discount information, owner information management data clearing means 1424 that clears the sent mail address information and recovery cartridge information of the owner information management database 157 from the owner management database after sending processing is performed by the recycling discount information sending means, and owner information management database utility means 1425 that displays, prints, and deletes

the contents of the owner information management database according to the instruction of the server administrator. As shown in FIG. 43, the owner information management database registering means 1422 comprises recovery cartridge information initializing means 1431 that sets the recovery cartridge information to 1 and registers it in the owner information management database 157 together with mail address information when the mail address information of the read owner information by the cartridge owner information reading means is not registered in the owner information management database and recovery cartridge information updating means 1432 that increments (counts up) and updates the recovery cartridge information in the database.

Further, as shown in FIG. 1, the merchandise control center server 150 according to the present embodiment is a merchandise control center server installed in the merchandise management center of consumable goods connected to communication information equipment 110 that consumes the consumable goods, a portal server 120 to which data is sent from the communication information equipment, an electronic settlement server 130 that performs the settlement of the transaction performed in the communication information equipment, a mail order center server 140 for mail-ordering the consumable goods, and a recycling

plant server 150 installed in a recycling plant via a network. As shown in FIG. 1, the server 150 comprises sixth information processing means 161 that performs the processing of various information in the

5 merchandise control center server, screen display means 162 that displays information-processed information on the screen, key input/pointing means 163 that inputs the information necessary for information processing with a key or by a pointing device on the screen,

10 printing means 164 that prints the information-processed contents, communicating means 165 that communicates the information-processed contents via the network, and merchandise inventory control database 166 in which the merchandise inventory control information

15 of the consumable goods is recorded.

Further, as shown in FIG. 38, the information processing means 161 comprises stored merchandise order table receiving means 1221 that receives an order table of stored merchandise by the stored merchandise order

20 issue mediating means and stored merchandise conveyance means 1222 that updates the merchandise inventory control in which the merchandise inventory control information of consumable goods and delivers the stored merchandise of which the order issue is given to the

25 mail order center of which the order request is given.

Further, the consumable goods online shopping method according to the present invention applies to a

consumable goods online shopping system that comprises
communication information equipment that consumes
consumable goods, a portal server to which data is sent
from the communication information equipment, an
5 electronic settlement server that performs the
settlement of the transaction performed in the
communication information equipment, a mail order
center server for mail-ordering the consumable goods, a
recycling plant server installed in the recycling plant
10 of the consumable goods, and a merchandise control
center server installed in the merchandise control
center of the consumable goods that interconnect via a
network, wherein it comprises the first information
processing step that performs the processing of various
15 information in the communication information equipment,
the first screen display step that displays
information-processed information on the screen, the
first key input/pointing step that inputs the
information necessary for information processing with a
20 key/by a pointing device on the screen, the first
printing step that prints information-processed
information, the first communication step that
communicates the information-processed contents via the
network, the first consumable goods consumption
25 execution step that executes the processing which
consumes the consumable goods, the first consumable
goods remaining quantity detection step that detects

the remaining quantity of the consumable goods, the second information processing step that performs the processing of various information in the portal server, the second screen display step that displays information-processed information on the screen, the second key input/pointing process that inputs the information necessary for information processing with the key or by the pointing device on the screen, the second printing step that prints information-processed contents, the second communication step that communicates information-processed contents via the network, the twenty-first storage step that stores the mail address and recovery cartridge information of the communication information equipment connected to the portal server in the second mail address database, the twenty-second storage step that stores the delivery store of the consumable goods in the second delivery store database for each area, the twenty-third storage step that stores the information of the mail order center that is connected to the portal server and from which the order issue of the consumable goods is given in the second mail order center registration information database, the twenty-fourth storage step that stores individual merchandise price information in the second consumable goods price database for each mail order center, the third information processing step that performs the electronic settlement based on

the authentication information input according to the first processing input on the communication information equipment, the third screen display step that displays information-processed information on the screen, the

5 third key input/pointing step that inputs the information necessary for information processing with the key or by the pointing device on the screen, the third printing step that prints information-processed contents, the third communication step for

10 communicating the information necessary for performing the electronic settlement, the third storage step that stores the data necessary for performing the electronic settlement, the fourth information processing step that performs the processing of various information in the

15 mail order center server, the fourth screen display step that displays information-processed on the screen, the fourth key input/pointing step that inputs the information necessary for information processing with the key or by the pointing device, the fourth printing

20 step that prints information-processed contents, the fourth communication step that communicates the information-processed contents via the network, the forty-first storage step that stores the merchandise data necessary for the mail order including the price

25 and the stock quantity controlled in the mail order center in the fourth merchandise database, the forty-second storage step that stores the customer

information of the customer of which order is requested in the fourth customer management database, the forty-third storage step the order table of which the order is given in the fourth order table database, the fifth information processing step that performs the processing of various information in the recycling plant server, the fifth screen display step that displays information-processed information on the screen, the fifth key input/pointing step that inputs the information necessary for information processing with the key or by the point device on the screen, the fifth printing step that prints information-processed contents, the fifth communication step that communicates the information-processed information contents via the network, the fifth cartridge owner reading step that reads the owner information stored in the storage area of the cartridge recovered in a recycling plant, the fifth cartridge information reading step that links and stores the number of recovery cartridges and the owner information, the sixth information processing step that performs the processing of various information in the merchandise control center server, the sixth screen display step that displays information-processed information on the screen, the sixth key input/pointing step that inputs the information necessary for information processing, the sixth printing step that prints

information-processed contents, the sixth communication
step that communicates the information-processed
contents via the network, and the sixth merchandise
inventory step that records the merchandise inventory
5 control information of the consumable goods.

Further, the first information processing step in
the communication information equipment comprises an
owner information registration step that stores the
information for identifying an owner including at least
10 any one of a mail address, a postal number, an address,
and a telephone number in the storage area of the
equipment as the owner information and a mail address
automatic registration step that performs automatic
connection to the portal server, issues a mail address
15 acquisition request to the portal server, and
automatically registers the allocated and sent mail
address by the portal server in the owner information
mail address when the mail address is not registered
regarding the mail address. The second information
20 processing step in the portal server comprises a mail
address notification step that receives the mail
address acquisition request issued according to the
mail address automatic registration step of the
communication information equipment, retrieves the
25 second mail address database and allocates and reports
an unregistered empty mail address as the mail address
of the requested communication information equipment,

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an automatic allocation step that automatically
allocates the empty mail address for the mail address
allocation, and an empty mail address retrieval step
that supports the allocation by the portal server
5 administrator.

Further, the second information processing step in
the portal server comprises a mail order center
information registration step that registers the
information about the order issue destination mail
10 order center of an order table in the second mail order
center server by the input of the portal server
administrator using the second key input/pointing step.
The fourth information processing step in the mail
order center server comprises a merchandise data
15 registration step that stores the merchandise data
necessary for receiving the mail order including the
price and the stock quantity input by the server
administrator in the fourth merchandise database and a
merchandise data sending step that sends the
20 merchandise data in the fourth merchandise database to
the portal server of the equipment manufacturer
according to the instruction of the server
administrator. The second information processing step
in the portal server comprises a consumable goods price
25 data registration step that receives the price
information and the stock information of the consumable
goods that are registered in the second mail order

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request notification. The order start information sending step comprises an order information generation step that generates the order start information including at least any one of the machine type information of the equipment that enables the discrimination of the consumable goods consumption amount and the discrimination of the consumable goods accumulated in the storage area, the owner information stored in the storage area of the equipment, and the connection information to the mail order center that is preferentially specified in the storage area of the equipment, an order start information auxiliary input step that urges the input of missing information and performs the auxiliary input processing of necessary information when the necessary information is missing at the generation of the order start information, and a order start information sending start step that starts the sending processing of the generated order start information.

Further, the first information processing step in the communication information equipment comprises a consumption amount counting step that increments (counts up) a consumption amount of the consumable goods and accumulates it in the storage area after the first consumable goods consumption execution step operates. The order start information sending step comprises an order start information generation step

that refers to a consumption amount of the consumable goods counted by the consumption amount counting step and generates it as the order start information. The second information processing step of the portal server

5 comprises an order start information acquisition step that receives order start information sent from the side of the communication information equipment and acquires the order start information and a consumption amount discount calculation step that calculates the

10 discount that matches the consumption amount of the consumable goods in the acquired order start information.

Further, the second information processing step in the portal server comprises an order table creation

15 step that creates an order table based on the order start information acquired in the order table start information acquisition step and an order table sending step that sends the created order table to the communication information equipment. The order table

20 creation step comprises a price information portion creation step that creates the price information portion of the order table, a delivery information portion creation step that the delivery information portion of the order table, an electronic settlement

25 information portion creation step that creates the electronic settlement information portion of the order table, and an order issue creation step that creates

specification in the connection information to the mail order center in the order start information. The delivery information portion creation step comprises a delivery method specification area creation step that
5 creates the specification area in which the delivery method including at least any one of mailing, conveyance, and store delivery as the specification of the delivery method, a destination information specification area creation step that creates the
10 destination information specification area necessary for the mailing and conveyance, and a delivery store specification area creation step that creates the delivery store specification area necessary for the store-based delivery, and creates the delivery
15 specification area obtained in each of the steps as the delivery information portion. At the creation of the destination information specification area, a destination information default setting step sets at least one of the postal number, address, name, and
20 telephone number described in the owner information in the order start information as a fault value. At the creation of the delivery store specification area, a store information default setting step specifies a delivery area from the postal number, address, name,
25 and telephone number, retrieves a second delivery store database from the specified area information, sets the store that is doing business in the delivery area so

that it can preferentially be specified, and always
updates and registers the latest data by the control of
the portal administrator concerning the second delivery
store database. The electronic settlement information
5 portion step comprises an authentication data input
area creation step that creates the area to which the
authentication data necessary for performing the
electronic settlement in the electronic settlement
server and creates the authentication data input area
10 created in the authentication data input area creation
step as the electronic settlement information portion.
The order issue portion creation step comprises an
order issue specification area creation step that
creates the area in which the activation of the order
15 issue instruction of the mail order can be specified
and a coupon ticket issuing specification area that
creates the area in which the activation of the coupon
ticket issuing instruction can be specified, and
creates the specification area created in the coupon
20 ticket issuing specification area creation step as the
order issue portion. The first information processing
step of the communication information equipment
comprises an order table receiving step that receives
an order table sent in the order table sending step, an
25 order table display step that displays the received
order table on the screen, an order table input step
that inputs the data necessary for the order table on

the displayed screen and performs the order issue and the coupon ticket issuing instruction, an order issue notification step that sends the order issue notification and the order table to which necessary data are input to the portal server of the equipment manufacturer when the order issue instruction is given, a coupon ticket issuing notification step that sends a coupon ticket issuing notification and the order table to the portal server of the equipment manufacturer, and an order cancellation step that cancels an order.

Further, the second information processing step in the portal server comprises a coupon ticket issuing notification receiving step that receives the coupon ticket issuing notification and the order table sent in the coupon ticket issuing step and a coupon ticket issuing processing step that receives the coupon ticket issuing notification and the order table and performs the ticket issuing of the coupon information based on the consumption amount discount information and recycling discount information provided in the price information portion of the order table. The first information processing step of the communication information equipment comprises a coupon information receiving step that receives coupon information sent from the coupon information sending step and stores it in the storage area of the equipment and a coupon information updating step that calculates a consumption

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Further, the second information processing step of the portal server comprises a back margin registration step at the side of the manufacturer that registers the information about brokerage and discount that match the handling amount determined according to the arrangement with each mail order center by the data input of the portal server administrator, an order issue notification receiving step that receives an order issue notification from the communication information equipment, an electronic settlement acknowledgment request step that receives the order issue notification, creates acknowledgment information based on the authentication data input to the order table, sends it to the electronic settlement server, and performs an electronic settlement acknowledgment request against the merchandise ordered to the specified mail order center, an order issue request mediation step that receives acknowledgment result information from the electronic settlement server and performs mediation to the mail order center, received order completion notification sending step that receives the received order acknowledgment notification and issues an order issue completion notification to the communication information equipment. The order

issue request mediation step comprises a number of mediation items counting step that counts the number of mediation items for each mail order center based on the acknowledgment result notification information from the electronic settlement server when an electronic settlement is acknowledged, an order issue request registration step that registers the number of orders counted through the number of mediation items counting step in the second mail order registration information database together with the order table of the order of which the order issue request is received, an order issue request order table sending step that sends the order table of which the order issue request is received to the mail order center, and an electronic settlement not-acknowledged notification step that sends an electronic settlement not-acknowledged notification to the first communication information equipment. The second information processing step of the portal server comprises a brokerage calculation step at the side of the manufacturer that calculates the brokerage paid from the side of the mail order center in accordance with the number of orders that is counted through the number of mediation items counting step and registered in the mail order registration information database through the order issue request registration step and a brokerage calculation step at the side of the manufacturer that calculates the

brokerage paid to the mail order center in accordance with the number of mediation items. The third information processing step in the electronic settlement server comprises an electronic settlement acknowledgment request receiving step that receives an electronic settlement acknowledgment request from the portal server and receives acknowledgment information, an electronic settlement step that performs an electronic settlement based on the acknowledgment information and electronic settlement database, and an electronic settlement acknowledgment result information notification step that sends the result of the electronic settlement to the portal server as the acknowledgment result notification information. The first information processing step in the communication information equipment comprises an order issue completion notification receiving step that receives an order issue completion notification from the portal server, an electronic settlement not-acknowledged notification receiving step that receives an electronic settlement not-acknowledged notification, and an order issue response notification display step that displays separately received notification contents. The fourth information processing step in the mail order center server comprises a back margin registration step at the side of the manufacturer that registers the information about brokerage and discount that match the handling

amount determined according to the arrangement with
each mail order center by the data input of the portal
server administrator, an order issue request order
table receiving step that receives an order issue
5 request from the order issue request, a received order
step that receives an order issue request, and sends a
received order acknowledgment notification to the
portal server when it is received. The received order
step comprises a number of orders counting step that
10 counts the number of order issue requests from the
portal server as the number of received orders and a
received order request registration step that registers
the number of received orders counted through the
number of received orders counting step in the fourth
15 order table database together with the order table of
an order of which the order issue request is received.
The fourth communication information equipment in the
mail order center server comprises a brokerage
calculation step at the side of the mail order center
20 that calculates the brokerage paid to the manufacturer
in accordance with the number of orders registered in
the order table database through the received order
request registration step and an order issue discount
calculation step at the side of the mail order center
25 that calculates the discount fee paid from the
equipment manufacturer in accordance with the number of
received orders.

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Further, the second information processing step of the portal server comprises a settlement information calculation step at the side of the manufacturer that calculates monthly settlement information for each mail order center on a monthly settling day or according to the instruction of the server administrator, a settlement information sending step at the side of the manufacturer that sends the calculated settlement information to each mail order center, a settlement information backup step at the side of the manufacturer that backs up all of the settlement information total, settlement information, and the order table handled within a settling month into the backup area of the second mail order center registration information database for each mail order center, a settlement information clearing step at the side of the manufacturer that clears the number of orders and an issued order table within a predetermined period when the settlement information is backed up by the settlement information backup step at the side of the manufacturer, and a settlement information utility step at the side of the manufacturer that prints and deletes the information backed up in the backup area according to the instruction of the portal server administrator. The settlement information calculation step at the side of the manufacturer comprises a consumption discount price total calculation step at the side of the

manufacturer that calculates the total of a consumption discount price recorded in the order table as the settlement information against all the order tables of the mail order center specified in the second mail order center registration database, a recycling discount price total calculation step that calculates the total of the recycling discount price recorded in the order table as the settlement information, the brokerage calculation step at the side of the manufacturer that calculates the discount fee paid to the mail order center in accordance with the number of mediation items as the settlement information, the order issue discount calculation step at the side of the manufacturer that calculates the discount price paid to the mail order center in accordance with the number of mediation items, and the settlement information total calculation step at the side of the manufacturer that calculates the value in which the order issue discount is subtracted from the total of a consumption discount price, a recycling discount price, and order issue brokerage as the settlement information total.

Further, the fourth information processing step in the mail order center server comprises a merchandise conveyance procedure step that performs a merchandise conveyance procedure based on the delivery method specified in an order table for the order table of

5 conveyance procedure termination in the order table
database for the order table of which the merchandise
conveyance procedure is terminated, and a stored
merchandise order issue step that performs an order
issue of stored merchandise to the portal server
10 according to the instruction of the server
administrator when no stock remaining quantity is
reported. The merchandise conveyance procedure step
comprises a stock quantity control step that reports
the information of no stock remaining quantity to the
15 server administrator of the mail data center, a
merchandise data sending step that receives the update
of a stock quantity and sends the merchandise data
updated in the fourth merchandise database to the
postal server of the equipment manufacturer, and a
20 conveyance destination label printing step that prints
the postal number, address, and name of a conveyance
destination on a label paper based on the owner
information of the order table.

Further, the second information processing step in
25 the portal server comprises a stored merchandise order
issue receiving step of which the order issue is given
through the stored merchandise order issue step and a

stored merchandise order issue mediation step that mediates a received order of which the received order is given and sends an order table to the merchandise control center server. The sixth information

5 processing step in the merchandise control center server of the consumable goods comprises a stored merchandise order table received order step that receives the order table of the stored merchandise through the stored merchandise order issue mediation
10 step and an stored merchandise conveyance step that updates the sixth merchandise inventory control database in which the merchandise inventory control information of the consumable goods is recorded and delivers the stored merchandise of which the received
15 order is given to the mail order center of which the order issue request is given.

Further, the fourth information processing step in the mail order center server comprises a money-received confirmation information addition step that adds money-
20 received confirmation information to the order table of which the money received is confirmed on a monthly settling day or according to the instruction of the server administrator, a settlement information calculation step at the side of the mail order center
25 that calculates monthly settlement information to the equipment manufacturer portal server, a settlement information backup step at the side of the mail order

center that backs up all of the settlement information total, settlement information, and received order table handled within a settling month to the backup area of the fourth order table database, a settlement
5 information clearing step at the side of the mail order center that clears the number of monthly received orders issued and a received order table when the settlement information is backed up the backup step and a settlement information utility step at the side of
10 the mail order center that prints and deletes the information backed up in the backup area according to the information of the portal server administrator. The settlement information calculation step at the side of the mail order center comprises a money-not-received
15 total calculation step that calculates the total of the money-not-received order table to which the money-received confirmation information is not added to all monthly order received order tables registered in the fourth order table database, a money-not-received order
20 table listing creation step that creates a list of money-not-received order tables, a money-received total calculation step that calculates the total of the merchandise price of the money-received confirmation information is added, a consumption discount price
25 total calculation step at the side of the mail order center that calculates the total of the consumption discount price recorded in the order table as the

5 settlement information, a brokerage calculation step at
the side of the mail order center that calculates the
brokerage paid to the equipment manufacturer as the
settlement information in accordance with the number of
orders, the order issue discount calculation step that
0 calculates the discount paid to the mail order center
as the settlement information in accordance with the
number of mediation items, and a settlement information
total calculation step at the side of the mail order
center that calculates the value in which the order
5 issue discount price is subtracted from the total of a
consumption discount price, a recycling discount price,
and order issue brokerage at the settlement information
total.

Further, the first information processing step in the communication information equipment comprises an owner information cartridge storage step that stores owner information in the storage area at the side of the cartridge when consumable goods are of a cartridge type and there is the area in which the owner information is stored at the side of the cartridge. The fifth information processing step in the recycling plant server of the consumable goods comprises a

cartridge owner information reading step that reads the owner information stored in the storage area of the recovered cartridge by the fifth cartridge information reader, an owner information management database registration step that acquires mail address information from the read owner information and registers it in the fifth owner information management database, a recycling discount information sending step that periodically sends the mail address information and recovery cartridge information stored in the fifth owner information management database as the recycling discount information to the portal server of the equipment manufacturer, an owner information management database clearing step that clears the sent mail address information and the recovery cartridge information of the fifth owner information management database from the owner information management database after sending processing is performed through the recycling discount information sending step, and an owner information management database utility step that displays, prints, and deletes the contents of the owner information management database according to the instruction of the server administrator. The owner information management database registration step comprises a recovery cartridge information initialization step that sets recovery cartridge information to 1 and registers it in the fifth owner

information management database together with mail
address information when the mail address information
of the owner information read through the cartridge
owner information reading step is not registered in the
5 fifth owner information management database and a
recovery cartridge information updating step that
increments (counts up) and updates the recovery
cartridge information of the database when the mail
address information is registered in the fifth owner
10 information management database. The second
information processing step of the portal server
comprises a recycling discount information receiving
step that receives mail address information and
recovery cartridge information sent through the
15 recycling discount information sending step and a mail
address database updating step that adds the received
recovery cartridge information to the recovery
cartridge information that corresponds to the mail
information of the second mail address database which
20 matches the received mail address information and
updates it.

Therefore, according to the present invention, a
setting input item of the user in a consumable goods
purchase request can be reduced and an operation
25 advantage can be offered to the user by providing the
function of setting owner information in communication
information equipment and centralizing all processing

flows in online shopping based on the set owner information.

Further, a function that is offered to the user can be provided by accumulating individual prices of the consumable goods at the side of the mail order center that are periodically sent from a plurality of mail order centers connected to the portal server of the equipment manufacturer, rearranging them in the price order and a choice advantage on merchandise selection can be offered to the user so that an economical mail order center can easily be selected.

Further, a remaining quantity detection automatic notification mode setting function and an order start request notification function are provided in communication information equipment. The degree of freedom regarding notification operation that the remaining quantity detection automatic notification mode setting function is used to detect a remaining quantity when the automatic notification mode is ON and to display a remaining quantity alarm and then issue an order start request notification when the remaining quantity is below a fixed amount, and not to issue the order start request notification even if the remaining quantity is below the fixed value when the automatic notification mode is OFF can be offered. The degree of freedom of the notification operation in which the order start request notification function is used to

perform the order start request notification issue processing at any time, and an operation advantage can be offered to the user.

Further, the portal server of the equipment manufacturer receives the order start request notification, creates an order table of consumable goods based on the individual prices of the accumulated consumable goods, and it can be offered to communication information equipment.

At this time, an order table for online shopping in which a discount of merchandise is explicitly displayed at the creation of the order table, and the input of authentication information is enabled so that a regional store, such as a convenience store can be specified and an electronic settlement will be enabled for a delivery method of the merchandise can be created.

Further, for the user who does not use online shopping, such specification area that can perform a ticket issuing instruction of only the discount coupon ticket can also be provided. Consequently, in the communication information equipment to which the presentation of an order table is given, an order issue of consumable goods is enabled merely by inputting data only to the necessary item of the presented order table and an operation advantage in the extremely-high-degree-of-freedom, clear, and simplified order issue

operation of the consumable goods can be offered to the user.

Further, in the portal server of the equipment manufacturer, for the user who desires the ticket
5 issuing of only a coupon ticket, a system can be constructed so that discount coupon ticket data will be sent to the user's communication information equipment and the coupon ticket issuing processing can be performed by the communication information equipment,
10 and a price advantage can be provided even to the user who does not use a mail order.

Further, an attempt is given to be able to issue a coupon ticket even in the communication information equipment. If the discount according to this attempt
15 is more advantageous than the discount by a mail order, the price advantage can be provided even to the user who does not connect his or her network and the user who seldom requests the issue of the coupon ticket by giving priority to this attempt.

20 Further, a mail order center registration function and a mail order center specification function are provided in the communication information equipment. A specific mail order center can always preferentially be selected and a choice advantage over the selection of a
25 merchandise purchaser can be offered to the user by enabling storage and registration of a plurality of mail order centers selected using the registration

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5 Further, the portal server of the equipment
manufacturer can construct a system so that the order
issued from the side of the communication information
equipment will be given to the specified specific mail
order center and a profit advantage due to the
10 brokerage for the mail order center can be offered to
the equipment manufacturer.

20 Further, the portal server of the equipment
manufacturer can automate part of accounting processing
by calculating the settlement information of the
transaction generated between it and the mail order
center on a monthly settling day and providing a
25 function of reporting it to each mail center, and a
profit advantage due to a reduction of personnel
expenses can be offered to the equipment manufacturer

Further, the mail order center server can automate part of conveyance processing by providing a function that receives an order from the portal server and performs a merchandise conveyance procedure by the conveyance method specified in an order table, a function that creates an address label of a conveyance destination based on the owner information written to the order table, and a function that performs merchandise inventory control at the delivery of the merchandise, and can offer a profit advantage due to a reduction of personnel expenses to the mail order center.

Further, the mail order center server can order stored merchandise from the consumable goods merchandise control center via the porter server of the equipment manufacturer when the stored merchandise is exhausted, and can offer an operation advantage in the stored merchandise order issue operation to the mail order center.

Further, the mail order center server can automate part of accounting processing by providing a function that calculates the settlement information of the transaction and the selling information of merchandise generated between it and the equipment manufacturer on a monthly settling day, and can offer a profit advantage due to a reduction of personnel expenses to the mail order center.

Further, the communication information equipment can obtain the quite same effect obtained even if the configuration of the equipment in which the electronic equipment having a communication function via the network and the electronic equipment that consumes the consumable goods are connected is replaced by, for

Further, the communication information equipment can obtain the quite same effect obtained even if the configuration of the equipment in which the electronic equipment having a communication function via the network and the electronic equipment that consumes the consumable goods are connected is replaced by, for

example, the equipment configuration in which the information of a printer, such as the printer connected to a computer including the configuration can be handled via the computer in which consumable goods are consumed in the communication information equipment.

The further desirable embodiment of the embodiment described above using a function block is illustratively described in detail below with reference to the drawings. However, the dimensions, materials, shapes, and their relative arrangements of components written to this embodiment will not limit the scope of this invention to only them, unless otherwise specified. Further, a storage medium, such as a write-enable nonvolatile memory or a hard disk is applied to each storage area described in each embodiment, and necessary information is written or read as occasions demand.

Further, in the following drawing, the same number is assigned to the same member as the member described in the previously-stated drawing. Further, the description of each embodiment of the consumable goods online shopping system according to the present invention described below also serves as the description of each embodiment of a recording medium which records the communication information equipment, portal server, electronic settlement server, mail order center server, recycling plant server, merchandise

control center server, consumable goods online shopping method, and consumable online shopping program according to the present invention.

(Embodiment 1)

5 First, the embodiment 1 of the consumable goods online shopping system according to the present invention is described with reference to the drawings. This embodiment 1 is constructed by combining embodiment 2 to embodiment 15 described later.

10 This embodiment 1, as shown in FIG. 46, is executed according to the system configuration in which the communication information equipment 110, the portal server 120 of the equipment manufacturer, the electronic settlement server 130 of a financial
15 company, the server 140 of a mail order center, the server 150 of a recycling plant, and the server 160 of a merchandise control center are connected via the network 100, and realizes a consumable goods online shopping system that produce many advantages by sending
20 and receiving (transferring) information via the network 100. FIG. 46 is a schematic block diagram of embodiment 1 of the consumable goods online shopping system according to the present invention.

At the execution of the system, in the equipment
25 connected via the network, each of the following processing is executed and the online shopping system proposed by the present invention is realized.

Initialization processing (FIG. 47)

As shown in FIG. 47, as initialization processing, the registration processing of the merchandise price information of the consumable goods which become the
5 object of online shopping is previously executed between the portal server 120 and the mail order center server 140 according to the procedure shown in embodiment 3, and in the communication information equipment 110, processing that registers the owner
10 information of an equipment owner is executed according to the procedure shown in embodiment 2. FIG. 47 is an operation concept diagram of the initialization processing of the system shown in FIG. 46.

Order Start Processing (FIG. 48)

15 Further, as shown in FIG. 48, in the communication information equipment 110, processing that consumes consumable goods is executed. With the execution of the consumption execution processing, counting processing regarding the consumption amount of the
20 consumable goods is executed according to the procedure shown in embodiment 5 and issue processing of an order start request notification to the portal server 120 is executed according to the procedure shown in embodiment 4. FIG. 48 is an operation concept diagram of the
25 order start processing of the system shown in FIG. 46.

Order table Creation Processing (FIG. 49)

Further, as shown in FIG. 49, in the portal server 120,

the issued order start request notification is received, an order table is created according to the procedure shown in embodiment 6, and processing that sends the created order table to the equipment

5 information equipment 110 is executed. FIG. 49 is an operation concept diagram of the order issue processing of the system shown in FIG. 46.

Order Issue Processing (FIG. 50)

Further, as shown in FIG. 50, in the communication
10 information equipment 110, the created order table is received, input processing of an order item is executed according to the procedure shown in embodiment 6, and order issue processing to the portal server 120 is executed. FIG. 50 is an
15 operation concept diagram of the order issue processing of the system shown in FIG. 46.

Further, in the communication information equipment 110, when a coupon ticket issuing instruction is given, coupon ticket issuing processing is executed
20 according to the procedure shown in embodiment 7.

Further, in the communication information equipment 110, when a specific mail order center of a supplier is specified, specification processing that specifies the specific mail order center is executed
25 according to the procedure shown in embodiment 8.

Order Received Processing (FIG. 51)

Further, as shown in FIG. 51, when an order issue

of the order of the consumable goods is given through the order issue processing, in the portal server 120, according to embodiment 9, the received order processing of the order of which the order issue is given is executed and check processing of authentication data for the electronic settlement server 130 of a financial company and mediation processing of an order from the specified mail order center server 140 are executed. FIG. 51 is an operation concept diagram of the received order processing of the system shown in FIG. 46.

Order Conveyance Processing (FIG. 52)

Further, as shown in FIG. 52, in the mail order center server 140, an order of which the order issue is given by the mediation of the portal server 120 is received and merchandise conveyance processing is executed according to the procedure shown in embodiment 11. FIG. 52 is an operation concept diagram of the order delivery processing of the system shown in FIG. 46.

Besides, in the conveyance processing, when merchandise stock is exhausted, the mail order center server 140 executes the order issue processing of stored merchandise to the portal server 120. In the portal server 120, an order of the stored merchandise by the received order processing of the stored merchandise is received and mediation processing that

places the order of the stored merchandise with the merchandise control center server 160 according to the procedure shown in embodiment 12. In the merchandise center server 160, the order of the stored merchandise is received and processing that delivers the stored merchandise to the mail order center is executed.

Settlement Processing (FIG. 53)

Further, as shown in FIG. 53, the portal server 120 executes settlement processing for each mail order center to a handled order according to the procedure shown in embodiment 10 and the mail order center server 140 executes the settlement processing to the handled order according to the procedure shown in embodiment 13. FIG. 53 is an operation concept diagram of the settlement processing of the system shown in FIG. 46.

Recovery Cartridge Information Registration Processing (FIG. 54)

Further, as shown in FIG. 54, in the communication information equipment 110, according to the procedure shown in embodiment 14, processing that records owner information in the storage area of a consumable goods cartridge is executed. In the recycling plant server 150, according to the procedure shown in embodiment 14, recovery cartridge information is generated based on the owner information of the recovered cartridge and processing that sends the recovery cartridge information to the portal server is executed. In the

portal server 120, the sent recovery cartridge
information is received and processing that registers
the recovery cartridge information in the database is
executed. FIG. 54 is an operation concept diagram of
5 the recovery cartridge information registration
processing of the system shown in FIG. 46.

Beside, the registered recovery cartridge
information is referred to in the order table creation
processing shown in embodiment 6 and processing is
10 executed so that an advantage can be returned to the
user as a recycling discount.

According to the processing flow described above,
in this embodiment, many advantages described in
embodiment 2 and later can be offered to the user.

15 (Embodiment 2)

The operation of embodiment 2 of the consumable
goods online shopping system according to the present
invention that is also used in the above embodiment 1
is described here.

20 In this embodiment 1, regarding the registration
of the owner information in the initialization
processing of the above embodiment 1, as shown in FIG.
55, in the information processing means 111 of the
communication information equipment 110, when the
25 execution instruction of the owner information
registration processing of the communication
information equipment is given after key input, data

receiving, and discrimination processing instructions (steps S5501, 5502, and 5503) of the user, the registration processing of the owner information is executed (step S5504) and an another necessary processing is performed for another instruction (step S5505). FIG. 55 is an operation flowchart of embodiment 2 of the consumable goods online shopping system according to the present invention.

With the execution of the processing, the information of a mail address, a postal number, an address, a name, and a telephone number is stored in the storage area of the equipment as the owner information.

Further, regarding the owner information registration processing, as shown in FIG. 56, after key input and key discrimination processing (steps S5601 and 5602), mail address registration processing and another owner information registration processing are allocated (steps S5603 and 5604). FIG. 56 is an operation flowchart of embodiment 2 of the consumable goods online shopping system according to the present invention.

When a mail address input instruction is given according to the user input instruction, the mail address automatic registration processing is executed by the mail address registration processing. In the mail address automatic registration processing, as

shown in FIG. 57, when the mail address is not in the unregistered state, automatic connection to the portal server of the equipment manufacturer is performed (step S5701), a mail address acquisition request is issued to the portal server (step S5702), the mail address allocated and sent by the portal server is received (step S5703), and processing that automatically registers it in the mail address of the owner information is executed (step S5704). FIG. 57 is an operation flowchart of embodiment 2 of the consumable goods online shopping system according to the present invention.

When an input instruction is given to another owner information, the information necessary for the specified owner information is input by the key input processing.

On the other hand, in the information processing means 121 of the portal server 120, as shown in FIG. 58, when the mail address acquisition request issued by the mail address automatic registration processing of the communication information equipment is received after key input, data receiving, and discrimination processing instructions (steps S5801, 5802, and 5803), mail address allocation processing or client and another necessary processing is performed (step S5804 or 5805). FIG. 58 is an operation flowchart of embodiment 2 of the consumable goods online shopping

system according to the present invention.

In the mail address allocation processing, as shown in FIG. 59, the mail address database 126 is retrieved (step S5901), an unregistered empty mail address is acquired (step S5902), the acquired mail address is allocated to the mail address of the communication information equipment to which a request is given, and processing that reports it to the communication information equipment is executed (step S5903). FIG. 59 is an operation flowchart of embodiment 2 of the consumable goods online shopping system according to the present invention.

Besides, for the mail address allocation processing, a description of the embodiment is given assuming the portal server 120 performs automatic mail address allocation that automatically allocates the empty mail address by receiving a mail address acquisition request. This can also be executed according to the instruction of the portal server administrator.

For example, as shown in FIG. 60, if the switching mode of a mode is provided and the manual mode is specified by mode allocation (step S6001), when a mail address acquisition request is received, this is reported to the portal server administrator (step S6005), a database is retrieved according to the instruction of the portal server administrator (step

S6006), a mail address is allocated according to the instruction of the portal server administrator (step S6007), and the mail address is reported to the communication information equipment (step S6008)

5 according to the portal server administrator. If a system is constructed in this manner, the mail address allocation processing can be executed. FIG. 60 is an operation flowchart of embodiment 2 of the consumable goods online shopping system according to the present invention.

Besides, the portal server automatic execution (the operation from step S6002 to step S6004) is the same operation shown in FIG. 59 described previously.

According to the processing flow described above,
15 in this embodiment, the communication information equipment can set owner information. If all processing flows in online shopping are unified based on the set owner information, a setting input item of the user in a consumable goods purchase request can be reduced, and
20 an operation advantage can be offered to the user.

(Embodiment 3)

The embodiment 3 of the consumable goods online shopping system according to the present invention is described below with reference to the drawings.

25 In this embodiment 3, regarding the registration processing of the merchandise price information of the consumable goods in the initialization processing of

embodiment 1, in the information processing means 121 of the portal server of the equipment manufacturer, as shown in FIG. 61, when the registration instruction of the mail order center information is given according to the input instruction of the server administrator after key input, data receiving, and discrimination processing instructions (steps S6101, 6102, and 6103) of the user, mail order center information registration processing (step S6104) that registers the information necessary for the processing of the mail order center which handles the online shopping of the consumable goods, merchandise price information processing (step S6105) that stores the received price information in the consumable goods price database when the price information from the mail order center registered by the registration processing is sent, and another necessary processing (step S6106) are performed. FIG. 61 is an operation flowchart of embodiment 3 of the consumable goods online shopping system according to the present invention.

In the mail order center information registration processing, as shown in FIG. 62, when the input of necessary information is performed by the input of the server administrator after key input processing and key discrimination processing (steps S6201 and 6202), data input is performed by the center information input processing (step S6203), and processing that registers

the input center information in the mail address database 126 is performed (step S6204) when an information registration instruction is given. FIG. 62 is an operation flowchart of embodiment 3 of the consumable goods online shopping system according to the present invention.

In the merchandise price information registration processing, as shown in FIG. 63, the received price information is acquired by the receiving data acquisition processing (step S6301), processing that registers the price information acquired in the consumable goods database 129 is performed by the merchandise price data registration processing (step S6302), and processing that rearranges the price information on the registered database for each merchandise type in the price order. FIG. 63 is an operation flowchart of embodiment 3 of the consumable goods online shopping system according to the present invention.

On the other hand, in the information processing means 141 of the consumable goods mail order center server, as shown in FIG. 64, merchandise data registration processing (step S6404) that stores the merchandise data necessary for receiving the mail order including the price and the stock quantity input by the server administrator after key input, data receiving, and discrimination processing instructions (steps

S6401, 6402, and 6403) of the user, merchandise price information sending processing (step S6405) that sends the merchandise data in the merchandise database 146 in the portal server of the equipment manufacturer as the price information according to the price information sending instruction of the server administrator, and another necessary processing (step S6406) are performed. FIG. 64 is an operation flowchart of embodiment 3 of the consumable goods online shopping system according to the present invention.

According to processing flow described above, in this embodiment, a function of storing an individual price of the consumable goods at the side of the mail order center that is periodically sent from a plurality of mail order centers connected to the portal server of the equipment manufacturer, rearranging it in the price order, and presenting it to the user can be provided, and a choice advantage over merchandise selection can be offered to the user so that a low-cost mail order center can easily be selected.

(Embodiment 4)

The embodiment 4 of the consumable goods online shopping system according to the present invention is described below with reference to the drawings. In this embodiment 4, regarding the issue processing of the order start request notification in the order start processing of embodiment 1, as shown in FIG. 65, after

key input, data receiving, and discrimination
processing instructions (steps S6501, 6502, and 6503)
of the user, in the information processing means 11 of
the communication information equipment, a consumable
5 goods consumption execution instruction is given and
consumable goods consumption processing is executed by
the consumption goods consumption execution processing
(step S6504). There are two cases in which the order
start request notification is issued when the remaining
10 quantity of the consumable goods goes below a fixed
value and the order start processing is executed by the
input of the user order start instruction (step S6505)
and the order start request notification is issued
according to the issue mode specification (step S6506),
15 and there is another necessary processing (step S6507).
FIG. 65 is an operation flowchart of embodiment 4 of
the consumable goods online shopping system according
to the present invention.

In the consumable goods consumption execution
20 processing, as shown in FIG. 66, remaining quantity of
consumable goods is detected by consumable goods
remaining quantity detection processing (step S6601),
and when the remaining quantity goes below a fixed
value, the remaining quantity state is reported to the
25 user by remaining quantity alarm processing (step
S6602) and the order start processing (step S6603) is
performed. Further, the information about the

remaining quantity of the consumable goods obtained
through the remaining quantity detection processing of
the consumable goods in the consumable goods
consumption execution processing is the information
5 based on the consumption amount that is incremented
(counted up) by the consumption amount counting means
511 described above and is stored and accumulated in
the predetermined storage area of the nonvolatile
storage means provided in a device. In this case, as
10 the nonvolatile storage means, for example, the
equipment storage area 212 shown in FIG. 8 corresponds
to this.

Further, when a printing portion and an
information processing portion are separated in the
15 communication information equipment as one form, that
is, the printing portion and the information processing
portion have such form that they are connected via a
predetermined communication table, such form that
stores the information (consumable goods remaining
20 quantity information) about the consumption amount of
the consumable goods calculated by the consumption
amount counting means of the printing portion in the
nonvolatile storage portion provided in the information
processing portion is also assumed in the present
25 invention. In such case, the sending of each
information to the portal server is executed by the
sending means provided in the information processing

portion.

When the remaining quantity does not go below a fixed value, consumable goods consumption processing is executed through consumption execution processing (step 5 S6604). When the consumption processing is terminated, either successive continuation or execution termination is checked. For the successive continuation, processing is repeated from the consumable goods remaining quantity detection processing, and for the 10 execution end, the consumable goods consumption processing is terminated. On the other hand, when the remaining quantity state is reported to the user by the remaining quantity alarm processing, the automatic issue mode of the order start request notification is 15 subsequently checked. In the ON mode, the order start request notification is issued by the order start processing, and in the OFF mode, the processing is terminated without performing the order start processing. FIG. 66 is an operation flowchart of 20 embodiment 4 of the consumable goods online shopping system according to the present invention.

In the order start processing, as shown in FIG. 67, processing (step S6702) that generates the information necessary for creating an order table at 25 the side of the portal server 120, such as the machine type information of the equipment that enables the discrimination of the consumption amount of the

consumable goods accumulated in the storage area and the discrimination of the consumable goods, the owner information stored in the storage area of the equipment, the connection information to the mail order center that is preferentially specified in the storage area of the equipment, as the order start information by order start information generation processing (step S6701) and processing (step S6703) that sends the order start request notification and order start information to the portal server 120 is performed. FIG. 67 is an operation flowchart of embodiment 4 of the consumable goods online shopping system according to the present invention.

Besides, when necessary information is missing at the generation of order start information, missing information input processing is performed by order start information auxiliary input processing. Further, the information about the consumption amount of the consumable goods described above corresponds to consumption amount discount information. It is assumed in the present invention that the consumption amount discount information indicates a simple consumption amount. For example, it is also assumed that the information is the information about the consumption amount combined with the consumable goods (or communication information equipment itself) or the information about the consumption amount of the

consumable goods at a predetermined period. By making consumption amount discount information correspond to such information, for example, such operation in the portal server that applies a high discount to the consumable goods which use recording agents (toner and ink) of a high unit price even for the same consumption amount is enabled, and such operation in the portal server that applies a higher discount to the consumption at a short period even for the same consumption amount is enabled.

Further, regarding the setting of the order start request automatic issue mode, in the information processing means 111, when an issue mode setting instruction is given, the ON/OFF mode switching can be set by issue mode setting processing.

According to the processing flow described above, in this embodiment, a remaining quantity detection automatic notification mode setting function and an order start request notification function are provided in communication information equipment. The degree of freedom concerning notification operation that the remaining quantity detection automatic notification mode setting function is used to detect remaining quantity when the automatic notification mode is ON and display a remaining quantity alarm and then issue an order start request notification when the remaining quantity is below a fixed amount, and not to issue the

order start request notification even if the remaining quantity is below the fixed value when the automatic notification mode is OFF and the degree of freedom of the notification operation in which the order start request notification function is used to perform the order start request notification issue processing at any time can be offered, and an operation advantage can be offered to the user.

Further, in this embodiment, a description is given citing the communication information equipment in which a printing device is incorporated as an example. As described above, the form is also assumed in which the printing device is separated from the communication information equipment (device that separates the printing portion from the communication information equipment in the present invention) and the printing device is connected to the communication information equipment via a predetermined communication cable. This is specifically described below.

First, in the configuration of the communication equipment of this embodiment, generation processing that generates order start information and sending processing that sends the order start information generated by the generation processing to the communication information equipment are provided at the side of the printing device. Receiving processing that receives the order start information sent from the

printing device, order start information auxiliary
input processing for inputting missing necessary
information, sending processing that sends the order
start request notification and the order start
5 information to the portal server, and receiving
processing that receives the response information that
corresponds to the order start information sent from
the portal server are provided at the side of the
communication information equipment.

10 Further, order start processing (step S6603) that
is based on remaining quantity detection (step S6601)
of the consumable goods is started as the processing at
the side of the printing device. In the order start
processing, processing that acquires necessary
15 information and generates the order start information
is performed by order start information generation
processing (step S6701) and processing that send the
generated order start information to the connected
communication information equipment is executed.

20 Further, as the processing at the side of the
communication information equipment, the processing
that receives the order start information sent from the
side of the printing device is performed, the necessary
information that is not covered with the received order
25 start information is compensated by the order start
information auxiliary input processing, and processing
(step S6703) that sends the order start request

notification and the order start information to the portal server is performed. Then a response to the sent order start information is received and the transfer for the side of the portal server generated subsequently is executed by sending and receiving necessary information as occasions demand.

By realizing the processing described above, the communication information equipment in which the printing device described in this embodiment is incorporated can execute the transfer in the same manner even in the form in which the communication information equipment is separated and the printing device is connected to the communication information equipment.

(Embodiment 5)

The embodiment 5 of the consumable goods online shopping system according to the present invention is described below with reference to the drawings.

In this embodiment 5, regarding the counting processing on the consumption amount of the consumable goods in the order start processing of embodiment 1, as shown in FIG. 68, after the consumption execution processing in the consumption goods consumption execution processing of embodiment 4, the consumption amount is added and counted by consumption amount counting processing (step S6805) and the counted consumption amount is reflected in the order start

information in the order start generation processing of the order start processing. A consumption discount can be calculated by providing the consumption discount calculation processing that calculates the discount amount that matches the consumption amount based on the consumption amount set in this order start information when an order table is created in embodiment 6.

Besides, another step of FIG. 68 is the same step shown in FIG. 67 described previously, FIG. 68 is an operation flowchart of embodiment 5 of the consumable goods online shopping system according to the present invention.

Further, as shown in FIG. 69, after key input, data receiving, discrimination processing instructions (steps S6901, 6902, and 6903), in the information processing means 111 of the communication information equipment, if another necessary processing (step S6905) and consumption discount calculation processing (step S6904) are executed according to the consumption discount calculation instruction, the consumption discount can also be counted in the communication information equipment. FIG. 69 is an operation flowchart of embodiment 5 of the consumable goods online shopping system according to the present invention.

According to the processing flow described above, in this embodiment, a function that allows

communication information equipment to count the
consumption amount of the consumable goods and
accumulate consumption amount in the equipment. At the
purchase of the consumable goods, a system that
5 performs control at the side of the portal server can
be constructed so that the accumulated consumption
amount is sent as the order start request notification
information and the consumable goods can be purchased
at the discount that matches the consumption amount,
10 and a price advantage can be offered to the user.

Further, the consumption discount can also be
calculated according to the user instruction in the
equipment and the coupon ticket shown in embodiment 7
can be issued.

15 (Embodiment 6)

The embodiment 6 of the consumable goods online
shopping system according to the present invention is
described below with reference to the drawings.

In this embodiment 6, regarding the processing in
20 the order table creation processing, in the information
processing means 121 of the equipment manufacturer
portal server, as shown in FIG. 70, after key input,
data receiving, discrimination processing instructions
(steps S7001, 7002, and 7003), an order start request
25 notification is received from the communication
information equipment is received and order table
creation processing (step S7004) is executed. After

the order table is created, the processing that sends the created order table to the communication information equipment is performed by order table sending processing (step S7005). FIG. 70 is an operation flowchart of embodiment 6 of the consumable goods online shopping system according to the present invention.

Further, delivery store database updating processing is performed by delivery store database update processing (step S7006) and another necessary processing is performed (step S7007).

In the order table creation processing, as shown in FIG. 71, acquisition processing (step S7101) of the order start information sent from the communication information equipment is performed by the order table start information acquisition processing. FIG. 71 is an operation flowchart of embodiment 6 of the consumable goods online shopping system according to the present invention.

Next, the information portion regarding the production information in the order table, such as merchandise price information and inventory information is created based on the acquired start information by price information portion creation processing (step S7102).

Then the information about the delivery method is created as the delivery information portion by delivery

information creation processing (step S7103).

Next, the setting area of the information
necessary for performing the electronic settlement
processing is created by electronic settlement
5 information portion creation processing (step S7104) as
the electronic settlement information portion.

Finally, the area in which an order issue instruction
is given and the area in which a coupon ticket issuing
instruction is given are created by the order issue
10 portion by the order issue portion creation processing
(step S7105).

For the price information portion creation
processing, as shown in FIG. 72A, first, the consumable
goods price database 129 by price information
15 acquisition processing (step S7201) is retrieved based
on the machine type information in the order start
information and processing that acquires the price
information and inventory information of the consumable
goods that correspond to the machine type information
20 is performed. Next, processing that calculates
consumption discount information is performed by
consumption discount calculation processing (step
S7202) based on the consumption amount of the
consumable goods in the order start information.
25 Subsequently, processing that acquires the number of
recovery cartridges stored in the mail address database
126 and calculates the discount that matches the number

of recovery cartridges as the recycling discount
information by recycling discount calculation
processing (step S7203) based on the mail address
written to the owner information in the order start
5 information.

Then finally, the order setting area is created by
order setting area creation processing (step S7204)
based on the price information, inventory information,
consumption discount information, and recycling
10 discount information obtained by each of the
processing.

Besides, since the price information acquired by
the price information acquisition processing is
acquired in the sequence sorted in the price order on
15 the consumption goods price database, the price
information portion to be created is created in the
state sorted according to the price.

Further, when there is a specification in the
connection information to the mail order center in the
20 order start information, the acquisition processing of
the price information and inventory information in
which priority is given to the specified mail order
center in the price information acquisition processing
is performed and the price information of the order
25 table to which priority is given to the specified mail
order center is created.

In the delivery information portion creation

processing, as shown in FIG. 72B, first, processing
(step S7212) that creates the specification area in
which a delivery method, such as mailing, conveyance,
store-based delivery can be specified as the
5 specification of the delivery method is performed by
delivery method specification area creation processing.
Then processing (step S7211) that creates the
destination information specification area required
when the delivery method is the mailing and conveyance
10 is performed by destination information specification
area creation processing. Subsequently, processing
that creates the delivery store specification area
required when the delivery method is the store-based
delivery is performed by the delivery store
15 specification area creation processing (step S7213).
Then the specification area obtained by each of the
processing is created as the delivery information
portion.

Besides, at creation of the destination
20 information specification area, the postal number,
address, name, and telephone number written to the
owner information in the order start information are
set as default values by destination information
default setting processing.

25 Further, at the creation of the delivery store
specification area, such setting that can
preferentially specify the store which is doing

business in the delivery area as a default is performed by store information default setting processing by specifying the delivery area from the postal number, address, and telephone number and retrieving the delivery store database 127 from the specified area information.

Regarding the delivery store database 127, in the information processing means 121 of the portal server, as shown in FIG. 70, delivery store database update processing (step S7006) is executed according to the delivery store database update instruction of the portal server administrator and the latest data is always updated and registered by the input work of the portal server administrator.

In the electronic settlement information portion creation processing, as shown in FIG. 72C, the processing that creates the area to which the authentication data required when an electronic settlement is performed in the electronic settlement server of a financial company by authentication data input area creation processing (step S7221) and the authentication data input area created by the authentication creation processing is created as the electronic settlement information portion.

In the order issue portion creation processing, as shown in FIG. 72D, first, processing that creates the area in which the activation of the mail order issue

instruction can be specified is performed by order
issue specification area creation processing (step
S7231). Then processing that creates the area in which
the activation of the coupon ticket issuing instruction
5 can be specified is performed by coupon ticket issuing
specification area creation processing (step S7232).
Finally, processing that creates the area to which the
mail order issue cancellation can be reported is
performed by mail order cancellation specification area
10 creation processing (step S7233). Then the
specification area created by these processing is
created as the order issue portion. FIGS. 72A to 72D
are operation flowcharts of embodiment 6 of the
consumable goods online shopping system according to
15 the present invention.

On the other hand, regarding the processing in the
order issue processing of embodiment 1, in the
information processing means 111 of the communication
information equipment, as shown in FIG. 73, after key
20 input, data processing, and discrimination processing
instructions (steps S7301, 7302, and 7303), the order
table sent from the side of the portal server is
received by the order table sending processing, and
order table order issue processing (step S7304) is
25 performed together with another necessary processing
(step S7305) is performed. FIG. 73 is an operation
flowchart of embodiment 6 of the consumable goods

online shopping system according to the present invention.

In the order table order issue processing, as shown in FIG. 74, first, order table acquisition
5 processing (step S7401) that acquires the received order table is performed and then processing that displays the acquired order table on the screen is performed by the order table display processing (step S7402). Subsequently, the data necessary for the order
10 table on the displayed screen is input by order table item input processing (step S7403).

Then when processing that performs an order issue and a coupon ticket issuing instruction is performed and an order issue instruction is given, processing
15 that sends the order table to which the order issue notification and necessary data are input to the portal server of the equipment manufacturer is performed by order issue notification sending processing (step S7404). When the coupon ticket issuing instruction is
20 given, processing that sends the coupon ticket issuing notification and order table to the portal server of the equipment manufacturer by coupon ticket issuing notification sending processing (step S7405). When an
25 order cancellation instruction is given, processing (step S7406) that requests order cancellation processing (step S7406) is performed by order cancellation notification sending processing. FIG. 74

the necessary item of the presented order table.
Accordingly, an operation advantage in the order issue
operation of extremely-high-degree-of-freedom, clear,
simple consumable goods can be offered to the user.

5 (Embodiment 7)

The embodiment 7 of the consumable goods online
shopping system according to the present invention is
described below with reference to the drawings.

In this embodiment 7, regarding the processing in
10 the order issue processing of embodiment 1, in the
information processing means 121 of the portal server
of the equipment manufacturer, after key input, data
receiving, and discrimination processing instructions
(steps S7501, 7502, and 7503), as shown in FIG. 75, a
15 coupon ticket issuing notification sent by the coupon
ticket issuing notification sending processing of
embodiment 6 is received and coupon information ticket
issuing processing (step S7504) is executed together
with another necessary processing (step S7504). FIG.
20 75 is an operation flowchart of embodiment 7 of the
consumable goods online shopping system according to
the present invention.

In the coupon information ticket issuing
processing, as shown in FIG. 76, first, the order table
25 sent together with the coupon ticket issuing
notification is acquired (step S7601) by the order
table acquisition processing. Then processing that

performs the generation of the coupon information based on the consumption discount information and recycling discount information provided in the price information portion of the acquired order table is performed by coupon information generation processing (step S7602) and processing (step S7603) that sends this generated coupon information to the communication information equipment 110 by the coupon information processing is performed. Further, as another form of the coupon information generated by the coupon information generation processing in step S7603, the form in which the coupon information consists of the consumption discount (or discount rate) calculated based on the consumption amount discount information, recycling discount (or discount rate) calculated based on the recycling discount information, and the additional discount information the consumable goods trader provides is also assumed. FIG. 76 is an operation flowchart of embodiment 7 of the consumable goods online shopping system according to the present invention.

On the other hand, in the information processing means 111 of the communication information equipment, as shown in FIG. 77, after key input, data receiving, and discrimination processing instructions (steps S7701, 7702, and 7703), the sent coupon information is received by the coupon information sending processing,

coupon information acquisition processing (step S7704) is performed, and processing that stores the received coupon information in the storage area of the equipment is performed. FIG. 77 is an operation flowchart of embodiment 7 of the consumable goods online shopping system according to the present invention.

Further, together with another necessary processing (step S7706), coupon ticket printing processing (step S7705) is executed according to the coupon ticket printing instruction of the operator and coupon ticket printing processing is performed. FIG. 77 is an operation flowchart of embodiment 7 of the consumable goods online shopping system according to the present invention.

In the coupon ticket printing processing, as shown in FIG. 78, by the consumption discount calculation processing (step S7801) described in embodiment 5, first, a consumption discount is calculated in accordance with the consumption amount previously stored in the equipment. Then the coupon information generated from the consumption amount discount and the coupon information stored in the storage area are compared by coupon information update processing (step S7802), processing that changes the coupon information in the storage area to the coupon information that is advantageous for the discount, and processing (step S7803) that prints the coupon information stored in the

storage area as the coupon ticket by the coupon ticket
printing issue processing is performed. For example,
when the information, such as the recycling discount
information (the number of consumable goods recovered
5 by users), is controlled and updated at the side of the
portal server, it becomes more economical information
(total discount information including the consumption
amount discount, recycling discount, and discount of
which the period is limited) to which the recycling
10 discount information controlled by the portal server is
added, and the user (communication information
equipment) can obtain more economical coupon
information. Further, on the contrary, when the
communication information equipment stores the discount
15 information of which the period is limited that can
receive a more economical discount than an ordinary
case, ordinary discount information is sent from the
portal server to the communication information
equipment and the coupon information of the
20 communication information equipment is updated. FIG. 78
is an operation flowchart of embodiment 7 of the
consumable goods online shopping system according to
the present invention.

According to the processing flow described above,
25 in this embodiment, the portal server of the equipment
manufacturer can construct such system that sends
discount coupon ticket information to the user

communication information equipment against the user who desires the ticket issuing of only the coupon ticket and enables the coupon ticket issuing processing by the communication information equipment, and a price advantage can be offered to the user who does not use the mail order.

Further, when a coupon ticket can also be issued in the communication information equipment and the calculated discount is more advantageous than the discount stored in the storage area of the equipment, a price advantage can be offered to the user who seldom requests the issue of the coupon ticket by giving priority to the discount stored in the storage area of the equipment. Further, by clearing the area in which the coupon information of the communication information equipment is stored, at shipment, priority can always be given to the calculated consumption discount and a price advantage can also be offered to the user who does not connect the network. For example, the user can print the coupon ticket to which the recycling discount information updated in the portal server is added and can receive a more advantageous discount more efficiently as described above. Even if there is no discount based on recycling discount information when the recycling discount information is added, the user can get a discount coupon ticket with discount based on consumption amount at least. In this way, the user can

get coupon tickets corresponding to various situations.

(Embodiment 8)

The embodiment 8 of the consumable goods online shopping system according to the present invention is described with reference to the drawings.

For this embodiment 8, regarding the processing in the order issue processing of embodiment 1, in the information processing means 111 of the communication information equipment, as shown in FIG. 79, when a mail order center registration instruction is given according to the user input instruction after key input, date receiving, and discrimination processing instructions (steps S7901, 7902, and 7903), mail order center registration processing (step S7904) that specifies a specific mail order center from a plurality of mail order centers provided in the price information portion of the order table that is displayed by the order table display processing of embodiment 6 is executed. When a mail order center registration deletion instruction is given, mail order center registration deletion processing (step S7905) that registers and then deletes the specific mail order center from the mail order center registered in the registration memory is executed.

Further, when a mail order center priority specification instruction is given according to the user input instruction, mail order center specification

function, a mail order center specification function,
and a mail order center specification release function
are provided in the communication information
equipment. Then a specific mail order center can

5 preferentially be selected at all times by being able
to store and register a plurality of the mail order
centers selected with the registration function in the
storage area of the equipment and by being able to
specify the specific mail order center from a plurality
10 of mail order centers stored and registered with the
specification function and a choice advantage over the
selection of a merchandise supplier can be offered to
the user.

(Embodiment 9)

15 The embodiment 9 of the consumable goods online
shopping system according to the present invention is
described below with reference to the drawings.

In this embodiment 9, regarding the processing in
the order issue processing of embodiment 1, in the
20 information processing means 121 of the portal server
of the equipment manufacturer, as shown in FIG. 80,
processing that registers the information of the
brokerage and discount fee which match handling amount
decided according to the arrangement with each mail
25 order center is previously performed by back margin
registration processing (step S8004) at the side of the
manufacturer according to the data input of the portal

sever administrator together with another necessary processing (step S8005) after key input, data receiving, and discrimination processing instructions (steps S8001, 8002, and 8003). FIG. 80 is an operation
5 flowchart of embodiment 9 of the consumable goods online shopping system according to the present invention.

Subsequently, when the information of the brokerage and discount that match this handling amount,
10 in the information processing means 121 of the portal server of the equipment manufacturer, as shown in FIG. 81, after key input, data receiving, and discrimination processing instructions (steps S8101, 8102, and 8103), an order issue notification from the communication
15 information equipment 110 is received, acknowledgment information is created based on the authentication data that is input to the order table, and electronic settlement acknowledgment request processing (step S8104) that performs an acknowledgment request of the
20 electronic settlement for the order issue merchandise to the specified mail order center is performed to the electronic settlement sever 130 of a financial company.

Since electronic settlement processing is executed in the electronic settlement server 130 by the
25 electronic settlement acknowledgment request processing and the result of the electronic settlement processing is sent to the side of the portal server as

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calculating the discount paid to the mail order center in accordance with the number of mediation items.

Further, in the information processing means 131 of the electronic settlement server of the financial company, as shown in FIG. 83, the electronic settlement acknowledgment request from the portal server 120 of the equipment manufacturer is received, and after key input, data receiving, and discrimination processing instructions (steps S8301, 8302, and 8303), electronic settlement processing (step S8304) is performed together with another necessary processing (step S8305). FIG. 83 is an operation flowchart of embodiment 9 of the consumable goods online shopping system according to the present invention.

In the electronic settlement processing, as shown in FIG. 84, processing that acquires acknowledgment information is performed by the acknowledgment information acquisition processing (step S8401) and processing (step S8402) that executes an electronic settlement by the electronic settlement execution processing based on the information registered on the acquired acknowledgment information and electronic settlement database. After the execution processing, processing (step S8402) that sends the result of the electronic settlement to the portal server as acknowledgment result notification information. FIG. 84 is an operation flowchart of embodiment 9 of the

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processing (step S8506) and processing that displays
this acquired electronic settlement not-acknowledged
information is performed by the order issue response
display processing. Further, another necessary
5 processing (step S8507) is performed. FIG. 85 is an
operation flowchart of embodiment 9 of the consumable
goods online shopping system according to the present
invention.

On the other hand, also in the information
10 processing means 141 of each mail order center server,
as shown in FIG. 86, processing (step S8604) that
registers the information of the brokerage and discount
that match handling amount, previously decided by the
arrangement with the manufacturer by the data input of
15 the server administrator of each mail order center
after key input, data receiving, and discrimination
processing instructions (steps S8601, 8602, and 8603)
in the storage area of the server is performed by the
back margin processing at the side of the mail order
20 center side. Further, another necessary processing
(step S8605) is performed. FIG. 86 is an operation
flowchart of embodiment 9 of the consumable goods
online shopping system according to the present
invention.

25 Then when the information about the brokerage and
discount that matches this handling amount, in the
information processing means 141 of the mail order

center server, as shown in FIG. 87, after key input,
data receiving, and discrimination processing
instructions (steps S8701, 8702, and 8703), an order
issue request from the portal server 120 of the
5 equipment manufacturer is received together with
another necessary processing (step S8705) and received
order processing (step S8704) is executed. FIG. 87 is
an operation flowchart of embodiment 9 of the
consumable goods online shopping system according to
10 the present invention.

In the order received processing, as shown in FIG.
88, when a received order request is received, order
received acknowledgment notification processing (step
S8801) that sends a received order acknowledgment
15 notification to the portal server 120 is performed.
Subsequently, the number order issue requests ordered
from the portal server 120 of the equipment
manufacturer is counted as the number of received
orders by number of received orders counting processing
20 (step S8802). Then an order table of the order of
which the order issue is received is acquired by order
table acquisition processing (step S8803).
Subsequently, processing that registers the number of
received orders counted by the number of received
25 orders counting means and the acquired order table in
the order table database 148 by received order request
registration (step S8804) is performed. FIG. 88 is an

operation flowchart of embodiment 9 of the consumable goods online shopping system according to the present invention.

5 Besides, the number of received orders counted by the number of received orders counting processing and registered in the order table database by the received order request registration processing is also referred to as occasions demand and used when the value based on the number of received orders is calculated. For
10 example, in the settlement processing of embodiment 1, the number of received orders is referred to for calculating the brokerage paid to the equipment manufacturer by the brokerage calculation processing at the side of the mail order center and is referred to
15 for calculation the discount fee paid from the side of the equipment manufacturer in accordance with the number of orders by the received order discount calculation processing at the side of the mail order center.

20 According to the processing flow described above, in this embodiment, the portal server of the equipment manufacturer can construct a system so that the order issued from the side of the communication information equipment can be ordered to the specified specific mail
25 order center and a profit advantage due to the brokerage to the mail order center can be offered to the equipment manufacturer.

Further, a system can also be constructed by providing a function that counts and accumulates the order issue amount to the mail order center at the side of the portal server of the equipment manufacturer so that the discount of the brokerage that matches the handling amount to each mail order center can be given and a profit advantage due to a discount can be offered to the mail order center.

(Embodiment 10)

The embodiment 10 of the consumable goods online shopping system according to the present invention is described below with reference to the drawings.

In this embodiment 10, regarding the processing at the side of the portal server in the settlement processing of embodiment 1, in the information processing means 121 of the portal server of the equipment manufacturer, as shown in FIG. 89, after input key, data receiving, and discrimination processing instructions (steps S8901, 8902, and 8903), in addition to utility execution processing (step S8905) and another necessary processing (step S8906), settlement information calculation processing (step S8904) at the side of the manufacturer that calculates monthly settlement information for each mail order center on a monthly settling day or according to the instruction of the server administrator is executed. FIG. 89 is an operation flowchart of embodiment 10 of

the consumable goods online shopping system according to the present invention.

In the settlement information calculation processing, as shown in FIG. 90, first, monthly settlement information calculation processing is performed by settlement information calculation execution processing (step S9001) and then settlement information sending processing at the side of the manufacturer that sends the calculated settlement information to each mail order center is performed by settlement information sending processing (step S9002). Subsequently, processing that backs up all of the settlement information total, settlement information, and order table handled within a settling month in the backup area of the mail order center registration information database 128 for each mail order center by settlement information backup processing (step S9003) and processing that clears the number of monthly order issue items and an order issue order table is performed when the settlement information is backed up. FIG. 90 is an operation flowchart of embodiment 10 of the consumable goods online shopping system according to the present invention.

First, shown in FIG. 89, in the communication information processing 121 of the portal server of equipment manufacturer, settlement information utility processing (step 8905) at the side of the manufacturer

that prints and deletes the information backed up in the backup area is also performed according to the instruction of the portal server administrator.

Besides, in the settlement information calculation processing at the side of the manufacturer, as shown in FIG. 91, consumption discount price total calculation processing (step S9101) at the side of the manufacturer that calculates the consumption discount price total recorded in the order table to all the order tables of the mail order center specified in the mail order center registration information database 128 as settlement information is performed. Subsequently, recycling discount total price calculation processing (step S9102) at the side of the manufacturer that calculates the total of the recycling discount price recorded in the order table as the settlement information is performed. Next, brokerage calculation processing (step S9103) at the side of the manufacturer that calculates the brokerage paid from the side of the mail order center in accordance with the number of orders counted according to the procedure described in embodiment 9 and recorded in the mail order center registration information database 128 and then order issue discount calculation processing (step S9104) at the side of the manufacturer that calculates the discount fee paid to the mail order center in accordance with the number of orders as the settlement

information. Finally, settlement information total calculation processing (step S9105) at the side of the manufacturer that calculates the value in which an order issue discount price is subtracted from the total of a consumption discount price, a recycling discount price, and order issue brokerage as the settlement information total is performed. FIG. 91 is an operation flowchart of embodiment 10 of the consumable goods online shopping system according to the present invention.

According to the processing flow described above, in this embodiment, the portal server of the equipment manufacturer can automate part of accounting processing by providing a function that calculates the settlement information of the transaction between it and the mail order center on a monthly settling day and a profit advantage due to a reduction of personnel expenses can be offered to the equipment manufacturer.

(Embodiment 11)

The embodiment 11 of the consumable goods online shopping system according to the present invention is described below with reference to the drawings.

In this embodiment 11, regarding the processing in the order delivery processing of embodiment 1, in the information processing means 141 of each server of a mail order center, as shown in FIG. 92, after key input, data receiving, and discrimination processing

instructions (steps S9201, 9202, and 9203), when a conveyance procedure execution instruction is given according to the instruction of the server administrator, conveyance procedure processing (step 5 S9204) is executed. When a stock order issue instruction is given, the input processing of an order table is performed by stock order issue processing (step S9205) and processing that performs the order issue of a stored merchandise is executed to the portal 10 server of the equipment manufacturer based on this order table. Further, another necessary processing (step S9206) is also be performed. FIG. 92 is an operation flowchart of embodiment 11 of the consumable goods online shopping system according to the present 15 invention.

Regarding conveyance procedure processing, as shown in FIG. 93, merchandise conveyance procedure execution processing (step S9301) that performs the conveyance procedure of merchandise to the order table 20 in which the conveyance procedure registered in the order table database 148 is not terminated based on the delivery method specified in the order table and conveyance procedure termination registration processing (step S9302) that registers conveyance 25 procedure termination in the order table database to the order table in which the merchandise conveyance procedure is terminated. FIG. 93 is an operation

flowchart of embodiment 11 of the consumable goods online shopping system according to the present invention.

In the merchandise conveyance procedure execution processing, as shown in FIG. 94, first, processing (S9401) that performs the update of the stock quantity in the merchandise database 146 in accordance with the number of received orders is executed by merchandise stock quantity update processing, and out-of-stock notification processing (step S9402) that reports the information of no stock remaining quantity to the server administrator of the mail order center is performed by the update processing when the stock quantity is exhausted.

Then, processing that sends the merchandise data updated in the merchandise database 146 to the portal server 120 of the equipment manufacturer by merchandise data sending processing (step S9403) is performed and subsequently, sendee label printing processing (step S9404) that prints the postal number, address, and name of a sendee on a label paper based on the owner information of an order table. FIG. 94 is an operation flowchart of embodiment 11 of the consumable goods online shopping system according to the present invention.

Besides, in this embodiment, an example in which when the stock quantity is exhausted by the merchandise

stock quantity update processing, the result is reported to the server administrator by the out-of-stock notification processing and an order issue of stored merchandise is performed according to the input instruction of the server administrator which receives this notification is shown. However, the order issue of the stored merchandise can be performed simultaneously with the detection of no stock quantity by executing stored merchandise order issue processing based on the previously customized order table instead of the out-of-stock notification processing.

According to the processing flow described above, in this embodiment, the mail order center server can automate part of conveyance processing by providing a function that receives an order from the portal server and performs a merchandise conveyance procedure using the delivery method specified in an order table, a function that creates a sendee address label based on the owner information written to the order table, and a function that performs merchandise inventory control at the conveyance of merchandise, and a profit advantage due to a reduction of personnel expenses can be offered to the mail order center.

(Embodiment 12)

The embodiment 12 of the consumable goods online shopping system according to the present invention is described below with reference to the drawings.

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For this embodiment 12, in the information processing means 121 of the portal server of the equipment manufacturer, as shown in FIG. 95, after key input, data receiving, and discrimination processing instructions (steps S9501, 9502, and 9503), a stored merchandise order issue request issued by the stored merchandise order issue processing is received, stored merchandise order issue mediation processing (step S9504) is executed, and processing that mediates an order issue of the stored merchandise of which the received order is received and sends an order table to the merchandise control center server 160 of the consumable goods is performed. Further, another necessary processing (step S9505) is also performed.

FIG. 95 is an operation flowchart of embodiment 12 of the consumable goods online shopping system according to the present invention.

Further, in the information processing means 161 of the merchandise control center server of the consumable goods, as shown in FIG. 96, after key input, data receiving, and discrimination processing instructions (steps S9601, 9602, and 9603), a stored merchandise order issue request mediated by the stored merchandise order issue mediation processing is received together with another necessary processing (step S9605) and stored merchandise received order processing is performed by stored merchandise received

order processing (step S9604) is performed. FIG. 96 is an operation flowchart of embodiment 12 of the consumable goods online shopping system according to the present invention.

5 In the stored merchandise received order processing, as shown in FIG. 97, an order table of stored merchandise is acquired by stored merchandise order table acquisition processing (step S9701) and merchandise inventory update processing (step S9702) that updates the merchandise inventory control database 166 in which consumable goods merchandise inventory control information is recorded based on the acquired order table is executed. Subsequently, processing (S9703) that conveys stored merchandise of which the received order is received to the mail order center of which the order issue is given is performed. FIG. 97 is an operation flowchart of embodiment 12 of the consumable goods online shopping system according to the present invention.

20 According to the processing flow described above, in this embodiment, a mail order center enables the order issue of stored merchandise to the consumable goods merchandise control center via the portal server of the equipment manufacturer when the stored merchandise is exhausted and can offer an operation advantage in the stored merchandise order issue operation to the mail order center.

(Embodiment 13)

The embodiment 13 of the consumable goods online shopping system according to the present invention is described below with reference to the drawings.

5 In this embodiment 13, regarding the processing at the side of the mail order center server in the settlement processing of embodiment 1, in the information processing means 141 of the mail order center, as shown in FIG. 98, when a money-received
10 confirmation information registration instruction is given on a monthly settling day or according to the instruction of the server administrator after key input, data receiving, and discrimination processing instructions (steps S9801, 9802, and 9803), processing
15 that adds money-received confirmation information to an order table in which the money received to an order is confirmed by money-received confirmation information registration processing (step S9804). When a settlement calculation instruction is given, processing
20 that calculates monthly settlement information is performed by settlement information calculation processing (step S9805). Further, utility execution processing (step S9806) and other processing (step S9807) are also executed. FIG. 98 is an operation
25 flowchart of embodiment 13 of the consumable goods online shopping system according to the present invention.

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In the settlement information calculation processing at the side of mail order center, as shown in FIG. 99, first, monthly settlement information calculation processing is executed by settlement information calculation execution processing (step S9901) and then processing that sends the calculated settlement information to the equipment manufacturer portal server 120 by settlement information sending processing (step S9902) at the side of the mail order center is performed. Finally, processing that (step S9903) that backs up all of the settlement information total, settlement information, and received order table handled within a settling month in the backup area in the order table 148 by settlement information backup processing and processing that clears a received order table to which the number of monthly received orders and money-received confirmation information are added and of which the settlement processing is terminated when the settlement information is backed up. FIG. 99 is an operation flowchart of embodiment 13 of the consumable goods online shopping system according to the present invention.

Further, as shown in FIG. 98, in the information processing means 141 of the equipment manufacturer, settlement information utility processing (step S9806) that prints and deletes the information backed up in the backup area according to the instruction of the

side of the equipment manufacturer in accordance with the number of orders as the settlement information by brokerage calculation processing (step S10006) at the side of the mail order center. Subsequently,

5 processing that calculates the discount fee paid to the mail order center in accordance with the number of mediation items as the settlement information by received order discount calculation processing (step S10007) at the side of the mail order center is
10 performed. Finally, settlement information total processing (step S10008) at the side of the mail order center that calculates the value in which a received order discount price is subtracted from the total of a consumption discount price, a recycling discount price,
15 and order issue brokerage as settlement information total is executed. FIG. 100 is an operation flowchart of embodiment 13 of the consumable goods online shopping system according to the present invention.

According to the processing flow described above,
20 in this embodiment, the mail order center sever can automate part of accounting processing by providing a function that calculates the settlement information of the transaction and the selling information generated between it and the equipment manufacturer on a settling
25 day and can provide the mail order center for a profit advantage due to a reduction of personnel expenses.

The further details of the processing described in

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FIG. 100 are described here using FIG. 107. In this case, each processing of FIG. 107 is realized by allowing the CPU (central processing unit) provided in the main body of the processing to execute the

5 processing that is based on the program code stored in nonvolatile-related storing means that is connected to a local device or in a readable form from the local device. Further, each equipment configuration is the same configuration as the typical configuration of the

10 information processor shown in FIG. 106 described later.

FIG. 107 is a drawing showing the processing of the transfer (sending and receiving) of various information regarding the consumable goods online

15 shopping between the respective units of a personal computer or the communication information equipment that corresponds to a printing device having the function that is equivalent to the personal computer, a portal server, and a mail order server. In this case,

20 the communication information equipment corresponds to the communication information equipment 110 of FIG. 1, the portal server corresponds to the portal server 120 of the equipment manufacturer 120 of the equipment manufacturer of FIG. 1, and the mail order center

25 server corresponds to the mail order server 140 of FIG. 1. Further, the portal server is assumed to be a server installed by a manufacturer that manufactures a

combined machine equipped with an ink jet type printer, an electrophotographic printer, a facsimile system, a copier, a printer function, and a scanner function.

For the mail order center server, a description is

5 given assuming such retail store having no IT assets that can perform centralized control of business machines via the Internet or the like, respectively.

The portal server and the mail order server are not limited to this case. For example, the portal server
10 may be acceptable if it is not only the manufacturer but also the person who is in the position to operate the server having the same function as the portal server.

First, in step S10701, the same order start
15 processing as that described in the steps S6505 and S6603 of embodiment 4 and in FIG. 67 is performed by the communication information equipment and the consumable goods online shopping is started.

Next, in step S10702, the order start information
20 including the discount information, such as the recycling discount information about the discount (consumption discount information) for the use of status of consumable goods and the discount for the cooperation of user recycling, is sent from the
25 communication information equipment to the portal server via a predetermined communication line, such as the Internet.

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In the portal server, in the step S10702, the sent order start information is received and in step S10703, a consumption discount fee is calculated as the point of the use of status of the consumable goods by recycling discount fee calculation processing (step S7202) described in embodiment 6. In step S10703, by the recycling discount fee calculation processing (step S7203) of embodiment 6, a recycling recovery point is acquired based on the owner information in the order start information and processing that calculates a recycling discount fee that matches the recovery point is executed.

In step S10704, an order table is created based on the discount fee that is based on such calculated point and in step S10705, processing that sends the created order table to the communication information equipment is executed by the order table sending processing (step S7005) described in embodiment 6.

On the other hand, in the communication information equipment that receives the information of this order table, the order table order issue processing (step S7304) of embodiment 6 executed in step S10706 is executed and necessary data input is performed. Subsequently, in steps S10707 and S10708, processing that sends the order table to which the necessary data is input to the portal server by the order issue notification sending processing (step

S7405) of embodiment 6 is executed in accordance with an order issue instruction.

At the side of the portal server, in step S10709, the sent order table is received based on the

5 processing of the information processing means 121 of the portal server described in embodiment 9 and in step S10710, the electronic settlement acknowledgment request processing (step S8104) is performed. This result is received and in step S10711, the order issue

10 request mediation processing (step 8105) of embodiment 9 is performed. In the order issue request mediation processing, processing that registers the order table of an order of which the order issue request is received in the mail order center registration

15 information database is performed in the order issue request registration processing (step S8202) and subsequently, in step S10712, processing (step S10713) that sends the order table of which the order issue request is received to the mail order center is

20 performed by the order issue request order table sending processing (step S8203).

In the mail order center server, based on the information processing 141 of the mail order center server described in embodiment 9, the sent order table

25 is received (step S10714) and the received order processing of embodiment 9 is performed. In the received order processing, in step S18015, the

processing (step S10716) that sends a received order acknowledgment notification to the portal server is performed by the received order acknowledgment notification sending processing (step S8801).

5 Subsequently, in step S10721, the order table of which the received order is given is acquired by the order table acquisition processing (step S8803) and processing (step S10721) that registers the acquired order table in the order table database is performed by
10 the received order request registration processing (step S8804).

At the side of the portal server, the received order acknowledgment notification sent from the side of the mail order server is received (step S10716) and
15 received order confirmation is performed (step S10717). Processing that sends a received order completion notification to the communication information equipment is performed (step S18019) according to the received order completion notification (step S8106) of
20 embodiment 9.

Then in the communication information equipment, received order completion information (step S10719) sent from the portal server is received by the received order completion information receiving processing of
25 step S10720 and the received order completion of an order issue of which the order issue is given can be confirmed.

On the other hand, regarding the forwarding order procedure of merchandise, in merchandise conveyance procedure processing (step S10722) of the mail order center server, an order table stored in the order database is acquired according to the conveyance procedure (step S9204) of embodiment 11 and the conveyance procedure of merchandise (consumable goods) is performed based on the contents of this acquired order table, and then the forwarding of merchandise is performed toward the user (owner of communication information equipment). The merchandise forwarded in this manner is delivered to the user and reception of merchandise is performed (step S10723).

By repeating the processing flow described above, the consumable goods online shopping is continuously enabled.

Further, the payment procedure for the point compensation (consumption discount or recycling discount) that matches the use of status of the consumable goods that are accumulated while the consumable goods online shopping described above is repetitively being repeated and paid from a manufacturer (portal server) to a retail store (mail order center server) is performed according to the following processing flow.

First, at the side of the mail order center server, the total of the discount amount of an order

table of which the order issue is given within the
period in the order table base is calculated (step
S10724) periodically (for example on a monthly settling
day) and processing that sends the calculated result
5 to the side of the portal server as reduced
compensation claim information is performed (step
S10725) using the discount price total calculation
processing (step 10004) at the side of the mail order
center of embodiment 13 and the recycling discount
10 price total calculation processing (step S10005) at the
side of the mail order center.

At the side of the portal server, the discount
compensation claim information is received (step
S10726) and the discount compensation payment procedure
15 processing of step S10727 is performed. Processing
that calculates the total of the discount of an order
table of which the received order is given within the
period for the mail order center server of which the
claim is received in the mail order center registration
20 information database is performed using the consumption
discount price total calculation processing (step
S9101) at the side of the manufacturer of embodiment 10
and the recycling discount price total calculation
processing (step S9102) at the side of the
25 manufacturer, as shown in step S10728. Then when it is
confirmed that the calculated discount total amount and
the discount total amount in the received discount

compensation claim information are compared and the result matches, the payment to the claimed discount compensation is performed and the processing that sends (step S10730) it to the mail order center server as discount compensation payment information is performed. Hereupon, in the processing of step S10730, the mail order center server receives the discount compensation payment information and confirms a discount compensation payment condition in step S10731. If the payment condition can be confirmed, processing that reports the acceptance confirmation information of step S10733 to the side of the portal server according to the acceptance confirmation notification of step S10732 and at the side of the portal side, it can be confirmed that the compensation payment procedure is completed by receiving this acceptance confirmation information (step S10734).

Besides, the user's owner information sent from the communication information equipment to the side of the portal server is executed by the owner information registration processing of embodiment 2.

Further, the number of recovery cartridges acquired when the recycling discount of embodiment 6 is stored in the mail address database in the portal server by the recovery cartridge registration processing of embodiment 14 and can be referred to.

In the 13th embodiment, a second consumable goods

trader who is a retail store can use the server having the IT function that a first consumable goods trader who handles the consumable goods of a manufacturer and can control the status of use of the consumable goods, and the second consumable goods trader can provide the user for the consumable goods at a reduced price that matches the status of use of the consumable goods used in a printing device that is controlled using the server function.

Further, the user can purchase the merchandise that the second consumable goods trader, such as a retail store, offers from his or her terminal device via a predetermined Internet purchase screen at a discount price based on the point that is described when it is controlled by the portal server. On the other hand, since the second consumable goods trader can receive a cash back or predetermined incentive that matches the discount amount when he or she makes a reduction to the customer using the service the portal server offers, sales promotion can easily be executed regarding the sales of the consumable goods.

Further, as a further form, the portal server comprises control means that associates and stores the user and the predetermined consumable goods trader (or the second consumable goods trader), and such form that associates the applicable condition of the service for each customer with the predetermined consumable trader

and controls it is assumed. It is assumed that the portal server decides the compensation (cash back or predetermined incentive) of each consumable goods trader in accordance with the utilization condition of the service against the sales for each predetermined consumable goods trader controlled by the control means. Besides, this status of use, as described above, can correspond to the recovery condition of consumable goods or the amount of the consumable goods used.

Thus, in the present invention, not only online shopping is constructed but also a mechanism that is advantageous for the portal server, mail order center server, and user respectively can be offered. For example, the portal server can advance the sales promotion of a retail store against the retail store by using the mechanism of the discount that matches the consumption amount of the consumable goods. In particular, when the supplier of the portal server is a manufacturer that manufactures the consumable goods, an appeal for products of its own company is facilitated to the retail store.

Further, as for the retail store, since the retail store can receive the compensation that matches a discount service applied to the user from the portal server, the discount service can easily be applied to the user.

Further, as for the user, since such condition in which various services could not be received from extremely a part of sales stores having the conventional IT assets changes and the user can receive discount services even in various retail stores, the selection range of the retail store increases and the condition becomes more convenient.

(Embodiment 14)

The embodiment 14 of the consumable goods online shopping system according to the present invention is described below with reference to the drawings.

In this embodiment 14, regarding the processing in the recovery cartridge registration processing of embodiment 1, in the information processing means 111 of the communication information equipment, as shown in FIG. 101, when the consumable goods are of a cartridge type and there is the area in which owner information is recorded at the side of the cartridge after key input, data receiving, and discrimination processing instructions (steps S10101, 10102, and 10103), owner information cartridge write processing (step S10104) that stores owner information even in the storage area at the side of the cartridge is performed together with another necessary processing (step S10105). FIG. 101 is an operation flowchart of embodiment 14 of the consumable goods online shopping system according to the present invention.

On the other hand, in the information processing means 151 of the consumable goods recycling center server, as shown in FIG. 102, when a recycling discount information collection instruction is given according to the input instruction of the server administrator after key input, data receiving, and discrimination processing instructions (steps S10201, 10202, and 10203), recycling discount information collection processing (step S10204) is executed together with another necessary processing (step S10206). When a utility execution instruction is given, utility execution processing (step S10205) is executed. FIG. 102 is an operation flowchart of embodiment 14 of the consumable goods online shopping system according to the present invention.

In the recycling discount information collection processing, as shown in FIG. 103, cartridge owner information reading processing (step S10301) that reads the owner information stored in the storage area of the recovered cartridge and owner information management database registration processing (step S10302) that acquires mail address information from the read owner information and registers it in the owner information management database 157 are repetitively repeated by the cartridge information reader 156 until the read processing by the reader is terminated. Then, after the read processing is terminated, the mail address

information and recovery cartridge information (for example, the number of recovered cartridges controlled for each user) stored in the owner information management database 157 as recycling discount

5 information is sent to the portal server 120 of the equipment manufacturer by recycling discount information sending processing (step S10303). After the sending processing is performed by the recycling discount information sending processing, processing

10 that clears the sent mail address information and recovery cartridge information in the owner information management database 157 from the owner information management database is executed by owner information management database clearing processing (step S10304).

15 FIG. 103 is an operation flowchart of embodiment 14 of the consumable goods online shopping system according to the present invention.

In the owner information management database registration processing, as shown in FIG. 104, the

20 owner information management database 157 is retrieved by mail address retrieval processing (step S10401) based on the mail address information in the owner information read by the cartridge owner information read processing. When a mail address is not

25 registered, recovery cartridge information initialization processing (step S10402) that sets recovery cartridge information to 1 and registers it in

the owner information management database 157 together with the mail address information. When the mail address is registered, processing that performs recovery cartridge information update processing (step 5 S10403) that increments (counts up) and updates the recovery cartridge information in the database is executed. FIG. 104 is an operation flowchart of embodiment 14 of the consumable goods online shopping system according to the present invention.

10 Besides, in the utility execution processing, processing that displays, prints, and deletes the contents of owner information management database is executed according to the instruction of the server administrator.

15 Further, in the information processing means 121 of the portal server of the equipment manufacturer, as shown in FIG. 105, after key input, data receiving, and discrimination processing instructions (steps S10501, 10502, and 10503), the recycle discount information 20 consisting of mail address information and recovery cartridge information sent by the recycling discount information sending processing is received and recycling discount information update processing (step 25 S10504) is executed. FIG. 105 is an operation flowchart of embodiment 14 of the consumable goods online shopping system according to the present invention.

In the recycling discount information update processing, processing that retrieves the mail address database 126 based the received mail address information and adds the received recovery cartridge information to the recovery cartridge information that
5 information to the recovery cartridge information that corresponds to matching mail address information and deletes it is executed.

Thus, a recycling discount price can be calculated in accordance with the number of cartridges in which
10 the recovery cartridge information recorded in the mail address database 126 is referred to and recovered in the recycling discount calculation processing described in embodiment 6.

According to the processing flow described above,
15 when a system that includes the recycling use of consumable goods is constructed as a business model, a consumable goods recovery path is established, and the recycling processing of the cartridge recovered in a recycling plant is performed, the system can purchase
20 the consumable goods against the order from the specified owner user in accordance with a recycling discount providing the function for recording equipment owner information in the cartridge of the consumable goods in the communication information equipment,
25 acquiring the owner information recorded in the recovered cartridge in the recycling plant, sending the acquired information and the number of recovery

cartridges to the portal server of the equipment manufacturer, specifying an owner user of the equipment manufacturer in the portal server of the equipment manufacturer. A price advantage can be offered to the
5 owner user of the recovery cartridge and an environmental advantage can be offered to the earth.

(Embodiment 15)

The embodiment 15 of the consumable goods online shopping system according to the present invention is
10 described below.

In this embodiment 15, the communication information equipment 110 described in the embodiment has the configuration in which electronic equipment A having the function that performs the consumption
15 execution and the remaining quantity detection of consumable goods and electronic equipment B having the function that performs processing required for performing online shopping offered by the present invention. The electronic equipment A executes each
20 processing of the printing processing, consumable goods consumption execution processing, consumable goods remaining quantity detection processing, and electronic equipment connection processing that performs the connection of the equipment in order to perform the
25 transfer of necessary information between it and the electronic equipment B described in the communication information equipment 110, and the electronic equipment

B executes each processing of the information processing, screen display processing, key input/pointing processing, communication processing, and the electronic equipment connection processing that
5 performs the connection of the equipment in order to perform the transfer of the necessary information between it and the electronic equipment A. According, all the embodiments can be executed according to the connection forms of the electronic equipment and the
10 electronic equipment B.

According to the configuration of the processing described above, in this embodiment, the communication information equipment can obtain the quite same effect even for the replacement according to the configuration
15 of the equipment in which the electronic equipment having the communication function through the network and the electronic equipment that consumes consumable goods, for example, like a printer connected to a computer, the configuration of the equipment in which
20 the printer information can be handled by the computer including the configuration in which the consumption of the consumable goods is performed in the communication information equipment.

The internal configuration of the communication
25 information equipment 110 that consumes consumable goods, the portal server to which data is sent from the communication information equipment 110, the electronic

settlement server 130 that the settlement of the transaction performed in the communication information equipment 110, the mail order center server 140 for mail-ordering the consumable goods, the recycling plant server 150 installed in the merchandise control center of the consumable goods, and the merchandise control center server 160 that interconnect via the network 100 is described here with reference to FIG. 106. FIG. 106 is an internal block diagram of the communication information equipment used in each embodiment of the consumable goods online shopping system according to the present invention, and shows a typical configuration of an information processor.

Further, except the communication information equipment 110, the internal configuration of the portal server 120 to which data is sent from the communication information equipment 110, the electronic settlement server 130 that performs the settlement of the transaction performed in the communication information equipment 110, the mail order center server 140 for mail-ordering consumable goods, the recycling plant server 150 installed in the recycling plant of the consumable goods, and the merchandise control center server 160 installed in the merchandise control center of the consumable goods has the same configuration as the case where it is described with reference to FIG. 106.

As shown in FIG. 106, the communication information equipment 110 comprises a CPU (central processing unit) 10601, an input device 10602, a main storage unit 10603, an output device 10604, an auxiliary storage unit 10605, and a clock device 10606.

The CPU 10601 is a component considered as an alias processor and comprises an arithmetic unit 10608 that performs the operation processing of digital data at the central part of the communication information equipment 110 and a controller 10607 that sends an instruction to the arithmetic unit 10608 and each device in a system and controls the operation.

The controller 10607 reads the data input from the input device 10602 and a previously assigned procedure (for example, program and software) in the main storage unit 10603 in accordance with the timing of a clock the clock device 10606 issues, and sends an instruction to the arithmetic unit 10608 based on these read contents and makes it perform operation processing. The result of this operation processing is sent to internal equipment and external equipment, such as the main storage unit 10603, the output device 10604, and the auxiliary storage unit 10605 based on the control of the controller 10607.

The input device 10602 is a component for inputting various data, and for example, a keyboard, a

mouse, a pointing device, a touch panel, a mouse pad, a CCD camera, a card reader, a paper tape reader, and a magnetic tape unit are considered.

5 The main storage unit 10603 is a component
considered as an alias memory, and in the processor and
the internal storage unit, this component indicates all
of the addressable storage space used for executing an
instruction. This main storage unit 10603 mainly
consists of semiconductor memory elements. It stores
10 and holds the input program and data and reads this
stored and held data to a register, for example, in
accordance with the instruction of the controller
10607.

15 Further, the semiconductor memory elements
that form the main storage unit 10603 consist of a RAM
(random access memory) and a ROM (read only memory).

20 The output device 10604 is a component for
outputting an operation result of the arithmetic unit
10608, and for example, the component corresponds to a
CRT, a plasma display panel, a liquid crystal display,
other display devices, a printing device, such as a
printer, and an audio output device.

25 Further, the auxiliary storage unit 10605 is a
component for compensating the storage capacity of the
main storage unit 10603, and for example, the component
corresponds to a floppy disk, a hard disk, a CD-ROM, a
CD-R, CD-W, and a MO in a magnetic disk drive, an

optical disk unit, and a semiconductor disk unit.

Besides, the various programs that make the communication information equipment 110 that consumes the consumable goods of this embodiment, the portal
5 server 120 to which data is sent from the communication information equipment 110, the electronic settlement server 130 that performs the settlement of the transaction performed in the communication information equipment 110, the mail order center server 140 for
10 mail-ordering the consumable goods, the recycling plant server 150 installed in the recycling plant of the consumable goods, and the merchandise control center server 160 installed in the merchandise control center of the consumable goods execute processing are stored
15 (recorded) in at least either the main storage unit 10603 or the auxiliary storage unit 10605.

Further, the number of the main storage units 10603 and the auxiliary main units 10605 is not limited to one each, but may be optional. As the number of
20 these main storage units 10603 and auxiliary storage units 10605 increases, the fault resistance of the communication information equipment 110 will be improved.

Accordingly, the recording medium that records the
25 program for making the communication information equipment and each server execute processing corresponds to at least either the main storage unit

10603 or the auxiliary storage unit 10605.

Effect of the Invention

As described above, according to the present invention, a mechanism that centralizes all processing flows in online shopping, for example, in accordance of
5 the processing flow of each embodiment, and realizes an online shopping system that is advantageous for each of users, portal server providers, mail order server administrators in the online shopping can be offered.

10

10603 or the auxiliary storage unit 10605.